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COMMERCIAL POSSIBILITIES OF PARA RUBBER SEED OIL.

By B. J. Eaton.

SINCE the publication in the *Agricultural Bulletin, F.M.S.*, Vol. VI, No. 5, February, 1918, of the results of the investigations carried out at the Agricultural Department which has attracted considerable attention outside Malaya, a detailed report has been received from Messrs. Rose, Downs and Thompson, the well-known oil machinery manufacturers of Hull, on a consignment of about 26 tons of undecorticated rubber seed despatched by the Director of Agriculture. The information contained in this report together with observations made by the Director of the Imperial Institute are embodied in the present article.

The seeds composing this consignment were collected from several estates in Selangor, the cost of collection varying on the different estates. The consignment consisted of three different lots of 87, 162 and 204 bags, respectively, or a total of 453 bags which weighed on receipt in Hull 25¾ tons.

The following are the details of the cost of the seed and total value of the oil and meal as supplied by Messrs. Rose, Downs and Thompson:

	Tons.	cwt.	qrs.	lbs.	per cent.
Weight of seed treated ...	25	15	1	7	
„ oil from whole seed by extraction	4	19	1	26	= 19.30
„ foots	0	15	1	2	= 2.93
„ meal	19	4	2	0	= 76.60
Loss in working	0	6	0	7	= 1.17

Account Sales.

	£	s.	d.
Oil (5 tons, approx.)	286	17	6
Meal (19¾ „ „)	157	16	0
Total ...	£444	13	6

Oil ... £50 per ton. Meal ... £8 per ton.

Costs.

	£	s.	d.
Less disbursement and expenses, London charges, customs, entry port dues, landing and wharfage charges ...	19	18	4
Carriage, London to Hull, and local transport, Hull	26	13	11
Analyst's fees	5	5	0
Total ...	£51	17	3
Net proceeds	£392	16	3

From the above sum, the cost of the seed, freight charges on rail in the Federated Malay States and from Port Swettenham to London and cost of extraction of the oil have to be deducted.

No information was supplied as to the cost of extraction of the oil, but the remaining figures of cost are as follows:

Cost of collection of seed ... $450 = £50, approx.
Freight charges and handling, Kuala Lumpur *via* Port Swettenham to London ...$3,415 = £400 „

From the above figures it will be seen that the cost of freight on the seed was not covered by the amounts realized by the sale of the oil and meal, after deducting costs in England.

The freight charges, etc., on the three consignments, which were shipped on separate dates, varied from $6.83 to $9.37 per bag.

It is scarcely necessary to add that the freight charges are very high, owing to the abnormal conditions in 1916 and 1917 and that it would not be desirable from an economic standpoint, even in normal times, to ship seeds, husked or unhusked, from this country.

Method of extraction.—The whole seed was extracted by Messrs. Wray, Sanderson & Co., Ltd., seed-crushers of Hull, in chemical extraction plant. It was unfortunate that the seeds could not be decorticated first and also that they had to be extracted, on account of conditions, by chemical solvent extraction instead of by hydraulic pressure mills.

The treatment of undecorticated seed involves the handling of nearly double the weight of material, since the seeds consist of about 40 per cent. of shell containing no oil; secondly, meal or cake from undecorticated seed, containing a large proportion of the hard shell, would be of very low value for feeding purposes for cattle or sheep; thirdly, extraction by chemical solvents, although it removes practically all the oil, probably renders the residual meal unfit for cattle feeding, on account of both its flavour and low percentage of oil. The method of extraction, however, shows the maximum oil-content of the whole seed obtainable under average commercial conditions, which compares favourably with analyses made in the laboratory.

It should be mentioned also that the price obtained for the oil, *viz.*, £50 per ton (approx.) is an enhanced price, due to present conditions, and compares with £60 per ton, which was the price of linseed oil at the time.

Under pre-war conditions, linseed oil fetched about £30 per ton and Para rubber seed oil would probably fetch £20 to £25 per ton.

Report on the Oil.

Apart from the criterion of the value of the oil, as indicated by the price realized, a sample was submitted also to a firm of paint manufacturers, who reported that the oil might be used to some extent as a substitute for linseed oil, but that it was more probable that it would only be used to mix with other oils, *i.e.*, in the nature of an adulterant. The oil, as was known previously, is not equal in quality to linseed oil as a paint oil or for varnishes. This firm valued the oil for its own purpose at £20 per ton in normal times, compared with £30 per ton for linseed oil. It may, on the other hand, prove more useful than linseed oil, which is said often to dry too quickly in hot climates, but this remains to be proved by actual experience.

The oil would probably not have any special value for other purposes, since for soap-making, etc., other fats and oils are available.

Results of analyses.—The analytical results obtained on the sample were as follows. (The figures for linseed oil and for previous samples of rubber seed oil are given for comparison).

	Rubber seed oil. (Present sample.)	Rubber seed oil. (Previous sample.)	Linseed oil.
Specific gravity at 15.5°C. ...	0.9245	0.925	0.932-0.937
Jean's refractive index at 22°C.	+ 24	...	...
Zeiss „ „ 40°C.	+ 62	...	72-74
„ „ „ 25°C.	+ 75	...	...
Wij's iodine value	139.3	128.5-143.3	175-200
Saponification value	192.5	188.5-192.1	189-194
Free fatty acids (as oleic acid) (per cent.)	16.9	5.3- 20.5	0.0-5.0
Drying test	Poor	...	Good

The high acid value of the oil from the present consignment of seed is probably due to deterioration during transport.

The oil was also dark in colour, due probably to colouring matter extracted by the solvent from the shell. The remarks on the unsatisfactory character of the oil from this consignment of seed for paints and varnishes are no doubt due largely to its high content of free fatty acids, since when mixed with white lead it would produce a pasty paint, which would not spread well.

Rubber Seed Meal or Cake.

The residue from the extraction by solvents may be described as a meal rather than an oil cake and was stated to have been sold for the purpose of mixing as an ingredient of a compound feeding cake.

The analysis of the meal gave the following results:

	Per cent.	
Moisture ...	8.24	
Oil	4.48	
Proteins ...	17.50	(containing 2.8 per cent. nitrogen)
Carbohydrates	32.29	
Woody fibre ...	34.86	
Mineral ash ...	2.63	(silica 0.25 per cent.)
Food unit value	87.24	

The large percentage of woody fibre is accounted for by the husk or shell and detracts considerably from the value of the product as a feeding material. It was not, however, possible to carry out any feeding experiments, under the conditions prevailing.

The following is an analysis of meal from the kernel only, with the oil reduced to about the same figure:

	Per cent.
Moisture	12.50
Oil	4.00
Proteins	33.25
Carbohydrates	39.75
Woody fibre	4.20
Mineral ash	6.30
Food unit value	132.87

The low woody fibre content of the above meal compared with that of meal from the undecorticated seed may be noted.

The following calculated analyses for oil cakes from undecorticated and decorticated seeds, obtained by expressing the seed in hydraulic presses, are of interest. The oil-content of the cake from the decorticated seed is assumed to be 13 per cent. but a smaller quantity of oil would remain in the cakes by twice pressing. For comparison, previous actual analyses are given, together with an analysis of linseed cake:

	(1) Cake from undecorticated seed.	(2) Cake from decorticated seed.	Previous analysis.	Linseed cake.
	Per cent.	Per cent.	Per cent.	Per cent.
Moisture	12.00	11.00	8.75	11. 6
Oil	8.00	13.00	8.71	9.50
Proteins	18.37	33.25	30.19	29. 5
Carbohydrates ...	24.93	32.25	41.71	35.54
Woody fibre ...	32.00	4.20	5.01	9.10
Mineral ash ...	4.70	6.30	5.60	5.20
Food unit value ...	90.85	147.87	139.00	133.00

Value of Extracted Meal as a Fertilizer.

Messrs. Rose, Downs and Thompson have also had the meal examined from the point of view of its use as an artificial fertilizer.

The figures obtained are as follows:

	Per cent.	
Nitrogen	2.80	(= Ammonia 3.00 per cent.)
Phosphate of potash	1.00	

At the Government rates ruling at the time—*viz.*, 17/6 per unit, the product was worth £2 12*s.* 6*d.* per ton, which is very low and much less than its valuation as a feeding material.

General Conclusions.

Messrs. Rose, Downs and Thompson point out that by chemical solvent extraction there would be no difficulty in reducing the oil-content of the residual meal, if desirable, to 1.5—2 per cent.

If the seed were expressed in hydraulic mills, they state that there would be no advantage in cold pressing first, in order to obtain a paler oil, followed by hot pressing to get the maximum amount of oil. Two pressings of heated seed, if necessary and economical, would be preferable.

In the consignment sent, the whole seed contained about 45 per cent. of shell to 55 per cent. of kernel. If the shell were removed before expression it could be used as fuel or possibly as a manure, although its value is not great for this purpose.

Messrs. Rose, Downs and Thompson also point out, with regard to the problem of machinery for expressing oil, that it would not be economical to run a plant for say about three months in each year and also that it is desirable to run such plant day and night, and not during the day only, stopping say at week-ends only. The writer has continually emphasized this point in discussing the running of oil machinery in this country.

Further, it is not desirable to use such plants for more than one kind of oil seed, as better results can be obtained by working continually on one type of seed. This means that the problem of storing seed should be considered, with the object of keeping the plant running throughout as long a period during each year as possible.

Decortication of the seed, prior to expression, is recommended, as has been recommended by the writer in this country, primarily on account of the fact that the shells contain no oil, and since they constitute over 40 per cent. of the seed, nearly double the quantity of decorticated seed can be treated in any given period. Further, the residual cake is of more value as a feeding material.

Machinery.

The following details with regard to machinery required are of interest.

Hydraulic plant.—Capacity 1.34 tons of undecorticated seed per hour or 1 ton of decorticated seed per hour equivalent to 7,200 tons of decorticated seed per year of 300 days of 24 hours per day. Plant supplied to decorticate the seed and press twice, working continuously.

The plant includes—

(1) Two decorticators;

(2) One set of crushing rolls of 5 rolls, 4 feet long by 16 ins. diameter;

(3) Two hydraulic "Premier" (*i.e.*, cage) presses, each with kettle;

(4) One cake breaker;

(5) One set Anglo-American rolls for re-grinding cake from cake breaker;

(6) One kettle for Anglo-American presses;

(7) One cake-moulding machine;

(8) Four Anglo-American (*i.e.*, open) presses;

(9) One set edge-stones;

(10) Cake-paring machine.

Necessary pumps, elevators, conveyers, tanks, accumulators, pipes and fittings, press mats and cloths and driving gear, exclusive of belts. Engine and boiler not included.

Pre-war price (excluding freight by sea)	£ 5,780 0 0
Estimated present cost	11,560 0 0

Chemical extraction plant.—Capacity $2\frac{1}{4}$ tons of undecorticated seed or $1\frac{1}{4}$ tons of decorticated seed per hour or 9,000 tons of decorticated seed per year of 300 days of 24 hours per day.

(1) Decorticating machinery.

(2) Reducing and grinding plant.

(3) Extraction plant—standard unit of four extractors.

(4) Meal-drying, cooling and bagging plant.

All necessary conveyers, elevators, connecting pipes and fittings and driving gear, except belts. Excluding boiler and engine.

Pre-war price	£ 5,900 0 0
Estimated present cost	11,800 0 0

Quantity of Seed and Oil from Estates in Malaya.

The area under rubber cultivation in Malaya is, approximately, $1\frac{1}{2}$ million acres, of which 1 million may be taken as European-owned or managed estates.

The yield of seed may be taken at about 400 per tree and assuming 90 trees per acre, the yield per acre would amount to 306 lbs. (1,000 seeds = 8.5 lbs.)

This gives a total yield of 130,000 tons of seed per annum, which, on a 20 per cent. oil basis, represents 26,000 tons of oil.

From an economic point of view it would be preferable to express or extract decorticated seed. The quantity of decorticated seed, on the basis of 55 per cent. kernel, would amount to 71,500 tons, which could be taken as yielding by expression 36 per cent. of oil or as above 26,000 tons, approximately.

NOTE ON THE SHIPPING OF COCONUT OIL IN BULK.

By B. J. Eaton.

WITH reference to the difficulty connected with the shipping of coconut oil in bulk in tank steamers due to the solidification of the oil in cooler climates and the recommendation contained in the paper entitled "Copra and Coconut Products," published in the *Agricultural Bulletin*, Vol. VI, No. 12, November and December, 1918, that this difficulty could be overcome easily by the use of steam coils in or around the tanks, the following information received from Messrs. Harper & Co., Kuala Lumpur, on behalf of the Asiatic Petroleum Co., should be of interest. The letter states:

"It will be of interest to your Department to learn that regular shipments of coconut oil in bulk have been made from Java to the Pacific Coast of America in the double bottoms of cargo steamers. As stated in the article in the *Agricultural Bulletin*, the difficulty of solidification in winter can easily be overcome by fitting steam coils, the installation of which, in double bottoms, presents no difficulty."

One of the greatest difficulties in connection with export of the oil is therefore easily overcome.

NOTES ON THE EXPERIMENTAL PLANTATIONS FOR THE YEAR 1918.

By F. G. Spring.

Cultivation of Food-crops.

FIFTY-SIX acres of land on Petaling Hill were planted with food-crops and the results obtained from the first harvest have provided a good deal of useful information. Records of costs, yields, etc., are being kept with a view to the publication of a special Bulletin on cereal, pulse and root crops when the second harvest is completed. Satisfactory returns have been obtained from a number of cereal crops grown under varying conditions of soil and there is every reason to believe that a few of the recently introduced crops can be successfully cultivated in the Malay Peninsula. Special mention should be made of *ragi* (*Eleusine coracana*) which has given very good returns and has proved to be suitable for growing in this country. Italian millet (*Setaria italica*) and bulrush millet (*Pennisetum typhoideum*) did quite well but, unfortunately, a large part of the crop was destroyed by birds and it seems probable that they will prove a serious pest to several of the millets as long as they are grown on a small scale. This danger would be eliminated when larger areas of these crops are under cultivation. It would appear that difficulty is being experienced as regards the threshing and milling of the grain. A letter has been addressed to India soliciting information on the matter and enquiries are being made as regards suitable machinery for the purpose.

Several of the pulse crops have shown promise more especially the black gram (*Phaseolus mungo*) the green gram (*Phaseolus mungo* var. *radiatus*), *Phaseolus aconitifolius* and the pigeon pea (*Cajanus indicus*).

As regards root crops, the yam, sweet potato and artichoke can all be grown satisfactorily on friable soils which have a fair proportion of humus.

Several district food-stuff shows were held during the year and it might here be mentioned that fruit, vegetable, spices and root crops were fairly well represented, but the exhibits of cereals (other than rice) and pulse crops were most disappointing but it is expected that future exhibitions will show a marked improvement in this direction. Botanical specimens of the various food-crops were exhibited at several of the shows.

An article on the cultivation of cereals in Malaya was published in the *Agricultural Bulletin* and a lecture delivered on the cultivation of food-stuffs in the Coast districts at the request of the Klang District Planters' Association. Correspondence in connection with food-stuffs generally has occupied a great deal of time. During the period of this report there has been a very large demand for cereals and to a lesser extent for pulse and root crops. In the

majority of cases the Department was able to provide the necessary planting material. A number of estates were visited in connection with food production and a good deal has been done as regards stimulating interest in the growing of these crops.

Sixty tons of yam tubers, for planting purposes, were received from India and quarterly supplies of European and tropical vegetable seeds from various parts of the world. All District Officers were informed that Malays would be supplied with yam tubers free of charge, on application to the Department.

Orders for 2,500 gantangs of hill padi were booked for delivery in the early part of 1919. It was quite impossible for the Department to deal with all the orders, but in those cases the applicants were generally informed where planting material could be obtained locally.

Poultry.—It was decided by the Food Production Committee that the Department of Agriculture be asked to make arrangements for the importation of poultry from India and distribution of same.

In October half of the first consignment, consisting of 10 pairs white leghorns and 10 pairs white wyandottes was received. The white leghorns were typical specimens of the breed and the white wyandottes of excellent type and, although young, showed a high standard of breeding.

Hevea Braziliensis.

Tapping.—All tapping experiments were continued. The results of tapping experiments obtained from tests conducted at New Lunderston Estate, Banting, were published in the *Agricultural Bulletin.*

The recording of all the figures has been kept well up-to-date with a view to writing a special illustrated Bulletin on tapping and tapping systems. The latest results all go to show the advisability of adopting a conservative system particularly when on renewed bark. One quarter cut would appear to be the most popular system in vogue and can generally be recommended, but there are conditions on some estates when other systems might be recommended in preference. The Agriculturist delivered a lecture on tapping at Seremban in March.

Manuring of rubber.—The experiments at Kuala Lumpur and Castleton Estate were continued and records of girth increase and yield kept throughout the year. Little interest has been taken by planters in this subject, but this is perhaps due to the difficulty of procuring artificial manures.

Tillage.—This has received a good deal more attention by planters than in former years. Cultivation of the lighter types of soil towards the close of the wet season is now a common practice for conserving soil moisture and is to be recommended. The mechanical condition of a soil is equally important as its chemical state, perhaps even more so in the case of the rubber tree and it is merely a question of time until tillage and green manuring, which improve the physical properties of a soil, take their proper place in rubber growing.

The cultivation tests which are being conducted at Castleton Estate were kept on throughout the year.

Cover crops.—Considerable quantities of *Centrosema plumieri* seed and cuttings of the Sarawak bean (*Dolichos hosei*) were supplied to many applicants. These two cover plants are becoming most popular in the country and given suitable soils for their proper growth they can be recommended. *Boga medelloa* (*Tephrosia candida*) has also been in demand and it might here be mentioned that the plant is quite suitable as a green manure, provided it is incorporated in the soil during the comparatively early stages of development, but cannot be recommended as a permanent cover crop on account of its woody habit of growth.

Prevention of soil wash.—Several estates were visited to advise on methods for the prevention of soil wash. A cover crop is suitable for the purpose, but under neglected conditions it is often impossible to establish a cover on account of the damage done by wash. When opening up hill land one of the first problems to consider is surface wash. In the early stages of development of a property a good cover can usually be established. Where it is impossible to grow a cover plant, much good can be done by planting Citronella grass in contour with the hill at intervals of from 20 to 40 feet depending on the slopes. The grass is periodically pruned and the cuttings left on the slopes, this also tends to prevent wash and when incorporated in the soil greatly improves its mechanical condition. Terracing and catchment pits are also effective remedies.

Time of fruiting and leaf fall.—Arrangements have been made for the recording of observations at the experimental gardens in connection with the time of flowering and fruiting of Hevea also the dates of leaf fall. These data may throw some light on a variety of important problems affecting the rubber industry.

Rubber seed oil.—An article on the work done by the Department in connection with the oil-content, keeping qualities and commercial possibilities of Para rubber seed was published in the *Agricultural Bulletin*. A consignment of 30 tons of the seed was sent to Messrs. Rose, Downs and Thompson, Ltd., of Hull, for crushing and valuation. £50 per ton was obtained for the oil and the residual cake realized £8 per ton. At the time linseed oil stood at £60 per ton.

Propagation of Hevea by cuttings and grafting.—The Superintendent, Government Plantations, in conjunction with the Economic Botanist devoted some time to the work. It has been proved by experiment that *Hevea* cuttings, under favourable conditions, will produce roots and grow. Experiments in grafting were conducted and the necessary arrangements made for further work during 1919. Present results indicate that patch-grafting is likely to be the most successful method of grafting Hevea.

Products other than Rubber.

African oil-palm (*Elæis guineensis*).—An article on the possibilities of the African oil-palm in Malaya was published in the *Agricultural Bulletin*. A considerable amount of local interest is

now being taken in the production of this vegetable oil and many enquiries have been received regarding the cultivation of the crop in this country. There is undoubtedly a wide field for experiment before a sound basis is established for definite recommendation, but from the result of experiments and observations made there seems no apparent reason why the African oil-palm should not be commercially profitable here. The soils and climate are suitable and the palms commence fruiting at an early age and give comparatively large return in yield. In Malaya, it would be possible to work a property on up-to-date lines, but how this would compare with the native industry in Africa is a matter which is very difficult to settle. There is a very wide market for the oil which is required in vast quantity and the price in normal times is fairly steady.

Seeds of three varieties of *Elæis* were introduced from Southern Nigeria in 1917 and a few acres planted near the Agricultural Offices. This area has shown good growth and it is expected that valuable information will be available from the plots in the near future. Several enquiries were received regarding the supply of seed and a letter has been addressed to the Director of Agriculture, Southern Nigeria, in this connection.

Tobacco.—A comprehensive report, on tobacco trials, carried out by this Department was prepared by the Superintendent, Government Plantations, in conjunction with the Agricultural Instructor, Kuala Pilah, and appeared in the March issue of the *Bulletin.* It is worthy of note that cigars made locally from Tembeling grown leaf found a ready market and were in considerable demand by the better classes of Asiatics. The stock of selected seed obtained was handed over to the Agricultural Instructor, Kuala Pilah, for distribution to Malays. At the Agricultural Shows held at Kuala Pilah and Seremban, some very fine exhibits of tobacco leaf were staged by number of Malay cultivators.

Cinchona.—Cinchona ledgeriana and *Cinchona succirubra* plots situated at Gunong Angsi at an elevation of 1,500 feet have continued to do well. Information has been procured as to the amount of quinine imported annually to the Malay Peninsula with a view to enquiring into the possibilities of local production. In this connection the Agriculturist inspected the range of hills in the vicinity of Gunong Angsi and reported on the suitability of this locality for cinchona cultivation. A few sites have been reserved as recommended by the Department pending a final decision on the subject.

Castor oil plant (*Ricinus communis*).—Considerable interest was evinced in the growing of the castor oil plant as a catch-crop in young rubber clearings and many enquiries were received regarding the supply of seed. A good deal of seed was harvested at Kuala Tembeling Government Plantations and distributed to prospective planters. Seed of a good commercial variety was imported from India but, unfortunately, the type proved unsuitable for cultivation in this country on account of disease, the imported material was therefore not distributed. The local variety thrives well and yields good returns on most soils and is comparatively free from disease. Enquiries were made as to the amount of seed available of the local variety. As long as the price of castor oil

remains high it will, in all probability, prove a profitable catch-crop particularly so should the oil be sold locally, but it is very questionable whether Malaya could ever compete with the world's markets when prices are more or less normal. The cultivation of this crop in India is almost entirely in the hands of the native cultivator and it would appear a more suitable crop for the small land-owner than for company concerns.

Ipecacuanha.—The demand for ipecacuanha cuttings was large and many root cuttings were distributed. Several pounds of marketable root were supplied to the Medical Department for experimental purposes.

Patchouli (*Pogostemon patchouli*).—Several thousand cuttings were supplied for planting purposes.

Tuba root (*Derris elliptica*).—At the request of the Entomologist to the Board of Agriculture and Fisheries, Food Production Department, London, one cwt. of tuba root was forwarded for experimental purposes.

Eucalyptus.—Several species of eucalyptus introduced from Australia in 1916 continue to do well, special mention should be made of *Eucalyptus citriodora* as having shown remarkably good growth.

Chinese wood oil (*Aleurites fordii*).—This tree has proved quite unsuitable for cultivation in Malaya.

Brazil nut (*Bertholletia excelsa*).—Several of the trees at the Kuala Lumpur Experimental Plantation have flowered this year, the trees are about four years old.

Fruits.—The small fruit plantation at Kuala Lumpur Experimental Plantation was maintained in order. The fruit plantation at Batu Tiga was also maintained in good condition and afforded some very useful observations on a number of fruits, both Malayan and exotic.

The Superintendent, Government Plantations, devoted some time to writing a Bulletin on "Fruit Culture in Malaya." This was commenced in March and completed by the end of the year. A series of photographs taken by the Superintendent were sent to Calcutta for the purpose of making half-tone illustrations for insertion in the Bulletin. It is hoped to publish this bulletin as No. 29, of the Department's special publications at an early date. A catalogue of fruits suitable for cultivation in Malaya was published in the June number of the *Agricultural Bulletin.* The writer invited any comments or additions from those interested in the cultivation of fruit in Malaya and some very interesting and valuable information was thereby obtained.

A fruit-raising shed was completed by the Public Works Department and handed over at the end of the year. It is proposed to raise fruit seedlings here for field planting and distribution to applicants. It will also be possible to conduct experiments in fruit propagation under favourable conditions.

Large scale farms.—The Agriculturist visited and reported on an area of jungle land situated in the district of Kuala Selangor and adjoining the Sungei Buloh forest reserve. Parts of the area inspected

would appear to be very suitable land and it is estimated that there would be no difficulty in obtaining an area of at least 1,000 acres. This officer also reported on a further area of jungle land near the Sungei Besi—Serdang Road about 10 miles from Kuala Lumpur in connection with the establishment of a large scale farm in Selangor. Application is to be made to have the land temporarily reserved pending a final selection.

General.—Periodic visits were made to Sapintas, Castleton, Pondok Tanjong and Kuala Tembeling Government Plantations. Forty Penghulus from Negri Sembilan and Pahang visited the Kuala Lumpur Government Plantation. The visit took place in July and extended over a period of three days. The officers were shown the field work of the Department and demonstrations were given on the more important agricultural subjects. Arrangements have been made for the Penghulus of Selangor to make a similar visit. A course of lectures in Agriculture, for Malay Probationers, was commenced in July and two lectures delivered weekly until the end of the year. At the termination of the course an examination was held.

NOTES ON ECONOMIC BOTANY DURING 1918.

By G. E. Coombs.

Rice.

(*a*) *The experimental error in field trials.*—The year under review has seen the completion of this section of work and the results obtained have made possible the standardization of plot-size both for large scale experiments and for breeding work.

The work was originally planned as a preliminary investigation into the range of "inevitable error" present in carefully controlled plots of various sizes with a view to the detection of the magnitude of the "correction factor" necessary to be applied before results could have significance. The necessity for such preliminary work has been indicated frequently in the *Agricultural Bulletins, F.M.S.*, and for rice the method of procedure has followed the lines laid down by Wood and Stratton in their investigation into the probable error in field trials with annual crops.

Three sets of experiments have been conducted by the Economic Botanist and the Agricultural Instructors in collaboration:

(*a*) the standardization of the trial ground at Titi Serong;

(*b*) the standardization of the trial ground at Kuala Pilah; and

(*c*) an investigation into the optimum size of plot for numerous tests of pure line varieties.

It was considered necessary that the two sets of experiments (*a* and *b* above) should be carried out, since the former area located as it is in the irrigation area of Krian presents entirely different sets of conditions from those in Kuala Pilah. The following summary indicates the results obtained:

Size of plot.	Probable error.	
	Krian.	Kuala Pilah.
Acre.	Per cent.	Per cent.
1/200	± 8 ...	± 10
1/100	± 7 ...	± 8
1/50	± 6 ...	± 6
1/25	± 5 ...	± 5

The investigation into the optimum size of plot and their number, for the detection of results of given magnitude, was carried out at Titi Serong on "pure line" material and has given valuable results. Plots ranging in size from 10 plants spaced one foot by one foot and six inches to 1/20 acre were used and the "standard deviations" calculated for the various sets of blocks. The results which will be communicated in detail later show that it is practicable by a proper system of duplication to work with plots of the minimum size indicated above.

(*b*) *Breeding work.*—As mentioned in the Economic Botanist's report for 1917 the unfavourable weather occurring during the harvest of that year militated very seriously against this section of

the work. The harvest of 1918 was carried out under ideal conditions and the results have been analysed. There are some peculiarly aberrant results—due partly, it is suggested, to the artificial methods which had to be adopted to procure the seed from the previous harvest.

This will be reported on later.

Fifty strains isolated from the original stock of Seraup, Radin Merah, Radin Kuning and Padi Pahit have been laid down to block-testing in plots of 1/40 acre in the following places: 1st class land of the irrigation area—Titi Serong and Tanjong Piandang, 2nd class—Bagan Serai and 3rd class land—Sungei Bogak.

Arrangements were also made to test them at Lenggong, Parit and Kuala Kangsar but owing to drought and labour difficulties, the two former areas had to be abandoned. The results of the oncoming harvests should, however, enable the final selection of the strains to be made.

Seventy additional individual plant selections chiefly from Lenggong padi were made and these receive their initial testing this year. Also over 1,000 new lines of Seraup have been laid down.

Forty-one varieties of padi received from the Agricultural Adviser, Pusa, were sown and should give interesting results. Some of them have short maturation periods and should be valuable for areas outside the irrigation area.

Labour difficulties consequent on the influenza epidemic have been very serious. At one stage in the planting it became a matter of speculation as to whether the experiments would have to be abandoned.

(*c*) *Green manures.*—The abnormally dry 1918 fallow period made this work unsuccessful. This is particularly to be regretted as it would appear that green-manuring is the only method whereby the Malays in the irrigation area will be induced to utilize the bendangs in the fallow season and whereby manuring as such will become at all possible to the peasant. *Sesbania aculeata* was sown in the ripening padi of the previous harvest and promised well until drought set in. Other green manures which were tried were: *Crotalaria juncea, Cicer arietinum, Cajanus indicus, Dolichos biflorus, Dolichos lablab, Phaseolus* spp. and *Tephrosia purpurea.* The work will be continued.

(*d*) *The investigation into the relation between weight of seed and its position in the ear, and between these two factors and productivity* was continued and the results await analysis.

(*e*) *Milling machinery.*—The necessary milling machinery of small capacity to make possible the investigation of the milling qualities of the various strains of highly productivity and other padi has been ordered and it is hoped that it may be possible to start this work towards the end of 1919. This aspect of the rice question requires careful investigation both from the point of view of beri-beri and of conservation to human consumption of the maximum possible amount of the grain.

Rubber.

The tabulation of the Bagan Serai Estate records has been brought up to date, there only remaining the statistical analysis and the calculation of the probable errors. This work has been particularly heavy. From the calculations already made it appears that a 5 per cent. error is present in individual plots of four acres for any period of six months. This result was to be expected from the records analysed by investigators in other countries. The Agricultural Chemist intends to put down manures as soon as the latter can be procured.

Thinning out experiments on Seaport Estate were unavoidably abandoned owing to restriction of outputs.

Other rubber work has remained in abeyance, awaiting the developments of the new schemes.

Coconuts.

(*a*) Work on the scheme of experimental work for Sapintas Estate has been commenced. It has been decided to abandon reclaimed areas actually carrying palms for present experimental work.

(*b*) *Agricultural experiments.*—Provision has been made for the execution of agricultural experiments on the following lines, 40 blocks of 3 acres left untreated, 40 blocks devoted to green manures and covers and 40 blocks to artificial manures, the results obtained in the two latter to be interpreted in the light of those obtained in the former. As the work develops it may be necessary to recast the scheme but it is necessary in the first instance to obtain data on the "inevitable error" present in the various blocks.

(*c*) *Breeding work.*—Two hundred acres of land have been earmarked for the Economic Botanist for this work and a start has been made in the selection of parent-trees of the more distinct forms which characterize the native cultivations. A system of registration has been adopted and will ensure the possibility of locating the parent-trees and keeping them under observation.

Seed has been already selected for investigating the influence of the age of seed-bearers on their progenies. In this instance arrangements have been made through the kind offices of the General Manager, Dindings Coconut and Rubber Estates, for the supply annually of nuts from specially marked trees. In this way it has been possible to control the "individual tree" factor.

Trees have also been chosen from "high angled" parents with a view to investigating the cause of their abnormality which occurs in about 5 per cent. of all young plantings.

The work involved in this section of the experimental scheme is exacting and makes great demands on the time of the investigator. With present staff progress can only be effected gradually.

General.

A six months' course of lectures in Botany, for Malay Probationers, was given during the year.

MINUTES OF A MEETING OF THE ADVISORY COMMITTEE, DEPARTMENT OF AGRICULTURE,

HELD AT THE OFFICES OF THE DEPARTMENT, ON THURSDAY, 30TH JANUARY, 1919, AT 11 A.M.

PRESENT:—Mr. L. Lewton-Brain (Director of Agriculture) Chairman, the Hon'ble Mr. R. C. M. Kindersley, Messrs. C. Bell, W. de Leighton-Brooke, W. S. Cookson, J. S. Ferguson, J. D. McCulloch, R. W. Munro, Chew Kam Chuan, Lee Kong Lam and B. Bunting (Assistant Agriculturist) Honorary Secretary.

ABSENT:—Messrs. H. Armstrong, T. W. Hodge, L. A. Irving, A. B. Milne, R. H. Phillips and C. Ritchie.

Messrs. B. J. Eaton, F. G. Spring, G. E. Coombs and W. N. C. Belgrave attended the meeting.

1.—MINUTES.

The minutes of the previous meeting held on 20th November, 1918, having been circulated were taken as read and confirmed.

2.—QUARTERLY PROGRESS REPORTS.

The quarterly progress reports of officers of the Department were laid on the table and the Chairman invited discussion.

Mr. FERGUSON asked whether it was possible to circulate these reports earlier so that members of the Committee would have better opportunity of discussing them at the meeting.

The CHAIRMAN replied that on this occasion there was considerable delay in submitting the reports partly due to pressure of work at the end of the year and also to unexpected changes in the staff, so that it was found impossible to circulate all the reports as usual. He considered there would be no difficulty in circulating future reports in ample time for the meetings as previously arranged.

Mr. MCCULLOCH asked whether the special Bulletin on "Black Stripe and Mouldy Rot" referred to in the Mycologist's report dealt with the question of infection and also whether it contained any recommendations with regard to preventive painting.

Mr. BELGRAVE replied that for Mouldy Rot he has suggested daily painting with a 3 to 5 per cent. solution of Izal together with fortnightly painting with a 20 per cent. solution of Brunolinum to be carried out only in wet weather. Although this treatment should be beneficial, results were not as good as those obtained with Black Stripe. This he attributed to the powers of resistance possessed by one of the three spore forms of *Sphaeronema*.

Mr. COOKSON asked whether the three forms of spores were distinct forms or only variants of the same form.

Mr. BELGRAVE replied that they were three distinct forms.

Mr MCCULLOCH stated that his experiments on daily painting with formalin-bisulphite solution gave negative results.

In reply to further enquiries regarding the respective values of ordinary Brunolinum and Brunolinum plantarium as a preventative Mr. Belgrave stated that Brunolinum plantarium was probably the better.

Mr. Belgrave asked the members whether they had seen burrs in connection with Black Stripe or any cases in which latex was exuding from the cracks produced by Black Stripe.

The replies were in the negative.

3.—EXPERIMENTAL COCONUT PLANTATION.

The Chairman reported that a scheme of experimental work suggested for Sapintas Estate had been drawn up by the sub-committee for the Experimental Coconut Plantation and the scheme was now submitted to the Advisory Committee for approval.

Mr. Cookson stated that he considered the general lines of work as formulated in the scheme to be very sound and suggested that the scheme should be safeguarded with a view to ensuring continuity in the work. He stated that it would, in his opinion, be advisable to record that the long-term experiments—breeding work and cultural work (*vide* sections 1 and 5 of the scheme)—should be carried to fruition, irrespective of changes which might occur in the personnel of the Advisory Committee or in the staff of the Department of Agriculture.

After some discussion Mr. Cookson proposed "that this Committee endorses the recommendations of the sub-committee and recommends that the programme for breeding work on the experimental coconut plantation be pursued until definite results are obtained and the same recommendations to apply to cultural work, laid down on the lines of section 6 of the scheme of experiments, and that records be preserved in continuity as a permanent reference."

This is unanimously agreed to.

Mr. Munro referred to the scheme of experimental work as being of great importance in advancing the scientific knowledge of coconut cultivation and considered that on Sapintas Estate there was a lot of fine material to work upon.

The Economic Botanist stated that with regard to the experiments on seed selection Mr. Cookson had kindly arranged to provide seed from special trees and that arrangements had been made to obtain other seed from known sources.

The Chairman raised the question of providing accommodation for visitors to the Experimental Coconut Plantation.

Mr. Cookson considered that such accommodation is not only necessary but absolutely essential.

After considerable discussion Mr. McCulloch suggested that a plan be drawn up on a not too ambitious a scale and submitted to the Committee at the next meeting.

This was agreed to.

4.—CO-OPERATIVE OIL MILLS.

The question of establishing local co-operative coconut oil mills was again brought up for discussion and the Chairman pointed out that no further action could be taken at present.

5.—NEW AGRICULTURAL INDUSTRIES.

The CHAIRMAN stated that Mr. Spring had inspected further areas of land in connection with the proposed large scale experimental farm, but until a survey could be made of the areas inspected it would be impossible to make a definite selection.

Mr. SPRING informed the meeting that he had visited an area of jungle situated in the district of Kuala Selangor and adjoining the Sungei Buloh forest reserve, which consisted of about 4,000 acres of State land. Parts of the area inspected appeared to be very suitable undulating land and it was estimated that there would be no difficulty in obtaining an area of 1,000 acres, probably more, but until a survey was made it was impossible to estimate the area of suitable land available.

Mr. MCCULLOCH suggested that the land be reserved until a survey could be made to show how much of the land was suitable.

Mr. SPRING stated that he also inspected a further area of jungle land near the Sungei Besi—Serdang Road about 10 miles from Kuala Lumpur. The area available consisted of about 1,000 acres the greater part of which appeared to be very suitable land. The serious objections were that the locality was not altogether suitable for an experimental plantation and there would be considerable difficulty and expense in making an approach road.

After some discussion it was decided to ask for both areas to be reserved until a survey could be made. It was suggested that if Government could not undertake the work a private surveyor be employed to prospect the areas in question.

The CHAIRMAN reported that he had received a reply from the Hon'ble the British Resident, Negri Sembilan, that the area of land on the Johol-Gemas Road was available and when a suitable area was selected, it would be reserved for the purpose of an experimental farm. A rough sketch of the area available was laid on the table.

Mr. MCCULLOCH suggested that Mr. Moorhouse, who was working on the Johol-Gemas Road, be asked to select a suitable area in that district.

Mr. FERGUSON considered that the area at Sungkai might be inspected as there appeared to be large areas of suitable land available in that district.

6.—STOCK-BREEDING FARM.

The CHAIRMAN informed the meeting that he had addressed a letter to the Under Secretary regarding the delay in starting the stock-breeding farm and had received a reply stating that the matter was receiving careful consideration by Government.

After some discussion it was decided to leave the matter to Mr. Kindersley, who promised to write and ask Government whether any further steps had been taken regarding the proposed scheme.

7.—EXPERIMENTAL CINCHONA PLANTATION.

The CHAIRMAN reported that Government were considering the advisability of establishing a quinine plantation and stated that Mr. Spring had inspected an area of land near the Kuala Pilah Pass in connection with the cultivation of cinchona. It had been decided to reserve the land inspected pending the selection of the actual area required Similiar action had been taken regarding possible sites around Ginting Simpah. It was agreed that the area selected should be reserved until a further inspection could be made.

The CHAIRMAN stated that the amount of quinine required by this country would not be sufficient to provide for the economic working of a factory, and he had asked the Under Secretary to inquire from the Indian Government whether they would be prepared to treat the bark produced in the Federated Malay States.

8.—GENERAL.

Circulars on the use of alum as a coagulant, printed in Chinese and Malay, were laid on the table.

The CHAIRMAN reported that the question of overcrowding of rubber trees on small-holdings was down for consideration at the next Conference of Residents.

The meeting terminated at 1.30 p.m.

APPENDIX A.

1. The following is an outline of the scheme of experimental work suggested for Sapintas Estate, which it is decided to submit to the Advisory Committee for approval:

(1) Breeding work—stock improvement.
- (*a*) Pollination and fertilization;
- (*b*) Study of variation;
- (*c*) Isolation of strains;
- (*d*) Hybridization;
- (*e*) Trials of importations.

(2) General physiological work—
The relation of the palm to water supply, etc.

(3) Work on the nature of the experimental method to be used in field experiments, for young coconuts the method will be different from that for old coconuts.

(4) Manurial work—
- (*a*) Detection of limiting factors;
- (*b*) Extension to a number of sub-stations.

(5) Culture—
- (*a*) Various cultivations;
- (*b*) Various green manures;
- (*c*) Toxicity problems;
- (*d*) Planting densities and thinning out, etc.

(6) Manufacture.

2. The present plantings on Sapintas are considered in the light of their possible utility for experiments and it is decided that all reclaimed areas actually carrying palms be for the present abandoned from this point of view.

3. The probable rate of clearing and the extent of land available for immediate planting are considered and it is decided that the Economic Botanist and the Agricultural Chemist shall visit the estate with a view to deciding on the location of the experimental plots to be laid down in the near future.

4. It is decided to ask for the preparation of a new plan of the estate with the reclaimed areas delimited.

5. The Economic Botanist outlines the work involved in the breeding scheme proposed and asks for the allocation of 200 acres of uniform land for his use.

This is agreed to, details of the work being left to the Economic Botanist who is asked to push the work forward as much as possible.

6. The general question of field experimentation is discussed, the Economic Botanist suggesting that unless such experiments can be carried out on individual trees of a pure strain a matter which in many cases he considers impossible much preliminary work is necessary before any experiments involving the detection of various agricultural treatments can be carried out with certainty of results.

The nature of controls in experiments with fruit crops is discussed. It is decided that 120 acres be laid down for block-testing, 40 untreated, 40 for manures and 40 for "covers" the results of the two latter to be interpreted in the light of results obtained from the former.

7. Arising out of the question of recording the effect of "covers" and "mulches," etc., generally, the Economic Botanist suggests that it may be proved that actual periodic physical and chemical examination of the soil will give results more satisfactory than crop measurement.

The Agricultural Chemist concurs in this and agrees that this shall be done as far as possible on all plots placed under experimentation.

8. It is left to the Agricultural Chemist and Agriculturist to decide on manures and to the Economic Botanist to arrange for seed for the various blocks.

9. The following "covers" are decided upon for trial:

Leguminous.

1. *Dolichos hosei.*
2. *Centrosema plumierii.*
3. *Tephrosia purpurea.*
4. *Tephrosia candida.*
5. *Clitoria cajanaefolia.*
6. *Mimosa pudica.*
7. *Mimosa sp. ?*
8. *Erythrina indica.*

Non-leguminous.

9. *Passiflora foetida.*
10. *Ipomea batatas.*

10. The question of experiments on grass weeding and toxicity generally is left for the Agricultural Chemist, Economic Botanist, and Agriculturist to arrange.

11. Trials of trees of various ages, as seed-bearers, is decided upon and the Economic Botanist asked to obtain the necessary seed.

12. The Economic Botanist asks that different densities and arrangements of planting be tried together with experiments in thinning out.

It is decided in the first instance:

(*a*) to plant 30 ft. × 30 ft. square and equilaterally;

(*b*) to plant 28 ft. × 28 ft. square and equilaterally;

(*c*) to plant quincunx and thin out, the last mentioned to remain in abeyance for the present.

13. It is decided to plant 100 acres with king coconut with a view to testing the commercial value of the tree. (Part of this will include line trials.)

14. It is decided to leave other major experiments for consideration at a later date.

INDIAN IMMIGRATION COMMITTEE.

A MEETING of the Indian Immigration Committee was held at Kuala Lumpur on 11th March.

There were present: The Controller of Labour (Mr. J. R. O. Aldworth), Chairman, Principal Medical Officer, F.M.S. (Dr. C. L. Sansom, C.M.G.), Director of Public Works, F.M.S. (Mr. R. O. N. Anderson), Hon'ble Mr. J. Mitchell and Messrs. W. Duncan, F. G. Harvey, E. E. Smith and C. W. Bradburne, with the Secretary, Deputy Controller of Labour, Penang (Mr. E. W. F. Gilman).

Figures of Immigration and Emigration.

The following statements of arrivals and departures of Southern Indians for the period 1st January to 28th February, 1919, and for the corresponding periods in the eight preceding years were laid before the Committee:

Arrivals.

Year.	State-aided.		Ordinary.	
	Adults.	Minors.	Adults.	Minors.
1911	5,834	539	2,174	126
1912	6,007	432	3,198	186
1913	6,363	521	3,163	211
1914	4,604	462	2,327	137
1915	436	27	512	35
1916	3,463	316	2,244	190
1917	5,062	450	3,135	247
1918	8,840	751	2,112	132
1919	4,260	236	2,691	347

Departures.

Year.	Adults.	Minors.
1911	7,531	246
1912	8,994	346
1913	12,790	546
1914	14,002	607
1915	10,793	557
1916	10,648	393
1917	11,187	451
1918	11,274	451
1919	10,010	423

The figures for the whole year 1918 were:

Arrivals.		Departures.	
Adults.	Minors.	Adults.	Minors.
49,694	5,889	49,918	2,214

The following detailed statement was also given of the shipments from India from the beginning of December last, showing the reasons for short shipments:

SHIPMENTS FOR LAST THREE MONTHS.

9-12-18	"Fazilka"	1,231	
19-12-18	"Tara"	1,498	
26-12-18	"Fultala"	981	
2- 1-19	"Fazilka"	141	Last ship from Madras—no shipment from Negapatam —rough weather
14- 1-19	"Fultala"	1,261	
22- 1-19	"Tara"	730	Left three days after Pongal festival
28- 1-19	"Fazilka"	183	Only three days behind "Tara"
8- 2-19	"Fultala"	1,251	
14- 2-19	"Euryalus"	562	Only five days behind "Fultala"
25- 2-19	"Fazilka"	485	Plague—Negapatam—no kangani coolies, voluntaries only
4- 3-19	"Fultala"	1,069	

KANGANI LICENCES.

A return was presented showing that the number of kangani licences registered in Penang during January and February was 2,131 as compared with 2,561 registered during the corresponding period of 1918.

Out of 6,841 fresh licences registered at Penang during the year 1918, 5,565 were presented for registration in the offices in India.

During the first two months of this year registration of nine licences was refused at Penang, while 32 were cancelled in consequence of reports received from the Emigration Agents in India as compared with 18 and 23, respectively, during the corresponding months of 1918.

ALLOTMENTS OF LICENCES.

A letter from the Secretary, Planters' Association of Malaya, was considered conveying a resolution passed at a general meeting of the Planters' Association of Malaya held on 29th January:

"That the Indian Immigration Committee be asked to reconsider the restriction of recruiting and if restriction is still necessary to limit the number of coolies to each estate in proportion to requirements instead of cutting down the number of licences."

The CHAIRMAN explained that the object of the restriction was to restrict recruiting and this could only be done by restricting the number of licences. We knew that 1,000 licences would produce, approximately, 6,000 coolies but if we were to allot that number of coolies to a certain number of estates and allow them to issue unlimited licences we should have no control over the numbers recruited, which was the object of the restriction.

Mr. DUNCAN suggested that the objection might be raised by employers when seeing ships arrive with so many short of their carrying capacity that the licences issued were insufficient.

The CHAIRMAN stated that this point would be dealt with later in connection with recruiting problems in India—the immediate question was the principle on which restriction should be applied.

Mr. HARVEY pointed out the impossibility of restricting recruiting by means of a restriction of numbers of coolies when there were two ports of embarkation: no individual kangani could know the state of his estate's recruiting figures. The proposal was to be rejected on the grounds that it was impracticable from a business point of view.

It was decided to inform the Planters' Association of Malaya accordingly.

Figures were given of the number of licences allotted and taken up:

In 1918—Total allotment	10,197	licences.
Number registered	6,735	,,
In 1919—Number of licences applied for, on which it was proposed to recruit 115,981 labourers ...	12,016	,,
First allotment	6,872	,,
Of which there were registered in January and February ...	2,123	,,

It was decided that the Secretary be allowed discretion to issue additional licences when good grounds are shown. The Committee, however, disapprove of allotments being carried over from one year to another.

CHOULTRIES.

The CHAIRMAN stated the action taken on the subject of the provision of rest-houses or choultries for returning emigrants at Port Swettenham and Penang.

A bill had been passed in the Colony and a similar measure would shortly be introduced in the Federal Council legalizing payments for this purpose out of the fund.

Steps were being taken to select suitable sites.

It was decided that permanent accommodation for 300 persons and temporary accommodation for 500 be provided at both Port Swettenham and Penang.

VOLUNTARY IMMIGRANTS.

The CHAIRMAN called attention to the satisfactory increase in the number of voluntary immigrants, *i.e.*, labourers emigrating of their own accord without the assistance of a kangani. The figures for 1918 were 7,036 adults and 485 minors—the previous highest number being 6,691, counting two minors as one adult.

Recruiting Problems in India.

The Chairman called upon the Secretary, who had just returned from a visit of inspection in Southern India, to explain the position regarding recruiting.

Mr. Gilman pointed out the impracticability of a proposal that had been made that the Committee should exercise increased control over the operations of recruiting, with a view to stimulating immigration. Let the Committee by all means be kept in touch with operations by more frequent meetings but they must trust their executive officers. It might sound paradoxical in face of the prevailing shortage of labour at the present time but the truth was that immigration did not require any stimulation. There were labourers ready and willing to emigrate up to the utmost limits of the demand. There had been three causes operating to curtail this supply:

(i) the restrictions imposed by the Government of Madras;

(ii) the lack of shipping facilities;

(iii) outbreaks of cholera at the emigration depôts.

Of these the first obstacle had been removed, the removal of the second was only a question of time but the third struck at the whole root of our system. There was no use blinking the fact that as far as Madras was concerned our arrangements had temporarily broken down, but solely on account of the prevalence of cholera. The Avadi depôt (at Madras) was opened in April, 1911, and for more than six years almost complete immunity from infectious disease was enjoyed. There was only one isolated case of cholera in all these years. On 12th July, 1917, an outbreak of cholera occurred which was only terminated by evacuating the camp on 26th August, 1917. The camp was then free of the disease from 1st September, 1917, when recruiting was resumed till June, 1918, when a fresh outbreak occurred. There was a third outbreak in September when all the emigrants from the s.s. "Fazilka" were relanded at Madras owing to cholera having appeared on board. Recruiting was resumed on 7th October and the fourth and most serious outbreak began on 29th December during the course of which there were 49 cases and 34 deaths. The camp was evacuated on 9th January, 1919, and recruiting resumed on 20th January, only for cholera to break out again on the 27th. This fifth and present outbreak was at the outset sporadic—the first case on 27th January, the second on 28th, the third on 11th February, the fourth on 21st February. Owing to the prevalence of cholera the Port Health Officer of Madras required a certificate that all intending emigrants had been under observation for 10 days before embarkation. Under present conditions this appeared to constitute an effective bar to emigration from that port.

As all this was but faintly understood in Malaya it was perhaps not to be wondered at that the feeling had grown up that the fault somehow lay with the Government officials. Hence a proposal had been made to appoint two European travelling inspectors in India, not Government officials. Besides being entirely unnecessary as no such stimulus was required the presence of European travelling inspectors in the recruiting districts would be calculated

to aggravate the wide-spread hostility existing in India towards emigration. Our sole justification in the eyes of the Government of India lay in the fact that the labourers themselves wished to come to us. Even supposing that the business would be more efficiently managed by non-official representatives it was hardly conceivable that either the Government of Madras or the Government of India would acquiesce in the change. The Ceylon Labour Commissioner was expecting that the whole of his organization, which at present was an unofficial body, would shortly be taken over by the Ceylon Government.

There had also been a proposal to appoint a European inspector on board the immigrant ships. In view of the difficulty of obtaining a suitable man he would suggest instead more frequent voyages by officers of the Department: it would, for instance, be a distinct advantage for the Senior Emigration Agent in India to come across periodically and confer with the Committee.

Coming to constructive proposals, the possibility of opening a depôt at Coconada, which had always been kept in view, had now become an urgent necessity. A discussion then took place regarding this proposal and other measures for dealing with the congestion at Madras. On the proposal of Mr. Duncan, seconded by Mr. E. E. Smith, the following resolution was passed:

> "This Committee, having considered the question of immigration of labour from India to this country, is unanimously of opinion, particularly in view of the likelihood of an increasing yearly demand for Indian labour and the desirability of having increased embarkation ports as safeguards against entire cessation of immigration through outbreaks of cholera, that immediate steps be taken to open up the port of Coconada as an embarkation port. The Committee further considers that the urgency of this requirement is so great that the matter of whether Government or the Committee defrays the cost of initiating the scheme should not be allowed to delay it."

It would take at least a year before a permanent camp at Coconada could be completed. In the meantime, in view of the unprecedented conditions already described it was impossible to let things go on as they were and measures were decided upon having for their object the isolation of emigrants from certain districts and the diversion to Negapatam of those from certain other districts which at present are served by the Madras depôt. (Instructions have since been sent to the Emigration Agents to give effect to these proposals.) In the meantime it was necessary to suspend recruiting entirely in the Northern districts. A notice would be issued as soon as it was possible to resume, but until then no licences for Telugu or Uriya kanganies would be registered. Before Mr. Gilman left India the Emigration Agent, Madras, had held up in his office 450 licences registered in Penang but which could not be issued on account of cholera. The Committee concurred in this proposal and the action taken. A further measure of restriction affecting, however, only a small number of licences, was also agreed upon. The Superintendent, Emigration Depôt, Negapatam, had advised that no licences should

be issued to recruit in the Kulli Hills, Namakal Taluk, Salem District—as this was an intensely malarial tract. Employers therefore should note that no licences will be registered for kanganies to recruit in that district.

Since the date of the meeting information has been received from the Superintendent, Emigration Depôt, Negapatam, that the military authorities have requisitioned space for 600 Chinese by the boat next sailing and that it is proposed to repatriate all Chinese by this route : hence the available accommodation for Indian immigrants is likely to be still further reduced.

MINUTES OF ANNUAL GENERAL MEETING OF THE PLANTERS' ASSOCIATION OF MALAYA,

held at the Town Hall, Kuala Lumpur, on 30th April, 1919, at 11.15 a.m.

PRESENT:

Mr. F. G. Harvey (*Vice-Chairman*) in the Chair

„ H. C. E. Zacharias (*Secretary*),

and the following MEMBERS:

From Batu Tiga D.P.A. ...	...	Messrs. M. A. P. Gilman, C. N. Crush, W. H. Bragg, Carlyle Bell, G. H. Bennett, A. P. Chalmers, V. C. Manners, C. Henly and J. S. Arter
„ Central Pahang P.A.	...	M. le Vicomte R. de Bondy
„ Central Perak P.A.	...	Messrs. G. Gordon-Brown, P. G. Lawford, A. H. Orr, and J. S. Ferguson
„ Johore P.A.	„	J. S. Beldam, C. W. Bradburne, C. S. Buyers, Chas. Prentice and J. P. Macaulay
„ Kajang D.P.A.	„	H. L. Lamotte, B. Biggin, C. R. Ferrers, L. A. Tucker, F. S. Monteith, N. C. L. Marshall and Shelton Palmer
„ Kapar „	„	L. Mooijaart, Noel Fisher, W. L. R. O'Brien, W. J. S. Price, T. Donaldson, J. Firth Fletcher, M. H. Cocke, W. R. Henderson, K. Crompton, Victor Kinloch, E. H. King-Harman and Capt. F. H. Brunton
„ Klang „	„	R. M. Bousfield, S. C. Yeomans, R. Battiscombe, C. A. Buxton, H. R. Quartley and Geo. Grant
„ Kuala Langat D.P.A. ...	„	H. O. Kennedy, H. C. D'Arcy Irvine and F. H. Mustard
„ „ Lumpur „ ...	„	R. St. John Gore, F. Clyde Jeavons, H. Armstrong, G. Reeve-Tucker, F. S. Williams, W. E. Hilton Ross, H. B. Wilkinson, J. B. Douglas, D. M. Tibbs, F. M. Riley, W. B. Anderson, G. P. Barnet, D. S. Ainger and W. D. Fraser
„ „ Selangor „	„	Thos. H. Menzies, J. M. Ferguson, R. W. G. Mercer, C. G. Trotter, W. M. Gordon, T. L. Stevens, R. A. White, H. G. L. Richards, E. D. Money, H. B. Dudley and E. V. Lermit

From Lower Perak P.A.	...	Messrs.	K. Tobutt, G. L. Catto, and H. de H. Smith
„ Malay Pen. Agl. Assn.	...	„	H. R. Moullin, R. H Thrupp, J. W. Kennedy, H. Gough, J. Cruickshank, M. Strivens, A. A. Craigen and E. D. Lane
„ Negri Sembilan P.A.	...	„	J. Bruce, Geo. Grant, R. Gooch, V. A. Tayler, J. Davidson McCulloch, A. Burgess, G. W. Hingston, I. Burgess, E. T. Hasselhuhn, G. F. W. Clifford and E. S. Biddlecombe
„ Taiping P.A.	... ...	„	C. O. T. Powell, Geo. Low and W. H. Tate
„ Ulu Selangor D.P.A.	...	„	L. W. Tivy, M. D. Fallon, G. C. Bailey and N. H. Dakeyne

Honorary Member.—Mr. L. Lewton-Brain (Director of Agriculture, F.M.S.).

Visitors.—Messrs. Cyril Baxendale (R.G.A. Council), F. C. Pasmore, B. J. Eaton (Agricultural Chemist, F.M.S.), A. Anderson, J. C. Hammett (Papua), T. K. Swaminathan, B. Bunting and Dr. B. Day.

1.—MINUTES.

Mr. Harvey says the first item on the agenda was the following resolution proposed by the Johore Planters' Association:

"That the minutes of the last meeting be confirmed with the exception of the resolution referring to the remarks of the Chairman and others which resolution shall be removed from the minute book and the remarks made by the Chairman and others at the Penang meeting be restored to."

This resolution he had to rule out of order and his reasons for doing so were not only his own but were those given by legal advisers he had consulted on the subject. According to Rule 26 any matter not provided for in the Rules was finally to be decided by the majority. There being no special rule in respect of minutes and the majority having decided in respect of certain minutes in a certain manner, that decision must therefore be taken as final and he therefore ruled that the resolution just read was out of order.

Next on the agenda they would find a resolution of the Malay Peninsula Agricultural Association which, however, was not a resolution moved by them for this meeting but was merely printed to inform members of the resolution passed by that body. For that reason he was not going to put it to the meeting. The resolution passed by the Malay Peninsula Agricultural Association as they saw read as follows:

"That this meeting desires to place on record its regret at the circumstances in which the Hon'ble Mr. R. C. M. Kindersley was impelled to vacate the Chair at the meeting of the Planters' Association of Malaya held in Kuala Lumpur on 29th January last, to express its confidence in Mr. Kindersley as Chairman of the Planters' Association of Malaya and its appreciation of the services he has rendered to the planting industry in that capacity,

and to affirm its approval of the sentiments on the subject of the relations between the Government and the planting industry voiced by Mr. Kindersley at the Planters' Association of Malaya meeting held at Penang on 25th November, 1918."

They would now therefore deal with the resolution on the subject which emanated from the Central Perak Planters' Association.

Mr. FERGUSON proposes "that this meeting desires to place on record its regrets at the circumstances which brought about the resignation of Mr. R. C. M. Kindersley from the Chairmanship of the Planters' Association of Malaya."

Mr. GORDON-BROWN seconds the proposal.

Mr. KENNEDY, on behalf of the Malay Peninsula Agricultural Association, wishes to identify himself with the proposal.

Similarly, Mr. TATE, on behalf of the Taiping; Mr. BRUCE, of the Negri Sembilan; Mr. TIVY, of the Ulu Selangor; Mr. ARMSTRONG, of the Kuala Lumpur; Mr. BENNETT, of the Batu Tiga; Mr. SMITH, of the Lower Perak; Mr. FISHER, of the Kapar; Mr. BUXTON, of the Klang; Mr. BONDY, of the Central Pahang Associations support the proposal which is then put to the meeting and declared carried *nem. con.*

Mr. LAWFORD then proposes "that this meeting desires to record its appreciation of the services rendered to the planting industry generally by Mr. Kindersley both in his capacity of Chairman of the Planters' Association of Malaya and member of the Federal Council."

Mr. ORR seconds.

Mr. HARVEY would like strongly to support this resolution. Few here knew as well as he did how whole-heartedly Mr. Kindersley had worked for the planters during the last two years and for many years before then. He had the honour of being a close personal friend of Mr. Kindersley and he certainly knew of no more conscientious upholder of their interests than their late Chairman.

Mr. KENNEDY concurs and says how highly his Association had appreciated Mr. Kindersley's services whilst Chairman of the Association.

The resolution is then put to the meeting and declared carried *nem. con.*

Mr. FERGUSON then proposes "that this meeting is in favour at all times of free and fair criticism on any question affecting the planting industry." The members of his Association considered it desirable that a clear indication of the future policy of the Association be given and they certainly had no wish in any way to be fettered in their discussions and criticisms whether of Government or anybody else. As long as it was fair criticism they felt it must not in any way be stifled.

Mr. GORDON-BROWN seconds the proposal which is declared carried *nem. con.*

Mr. HARVEY says that they now came to the original business—*viz.*, the consideration of the last minutes. He wishes to make it quite clear that what was now at issue was merely the accuracy or inaccuracy of a record of what took place at their last meeting.

Mr. MCCULLOCH proposes and Mr. MOOIJAART seconds, and it is carried unanimously, that the minutes be passed, and they are confirmed accordingly.

2.—WAR RELIEF.

The SECRETARY submits the following letter and London accounts and refers to the result of the local subscriptions as published on page 2 of their Annual Report which was now before them:

"MALAY STATES INFORMATION AGENCY,
"88, CANNON STREET,
"LONDON, E.C. 4.
"*30th January, 1919.*

"WAR RELIEF FUND.

"DEAR SIR,

"I beg to acknowledge the receipt of your letter of the 4th December, 1918, in which you ask for an expression of opinion as to what capital sum ought to be aimed at as it is proposed to close the Fund as soon as it is finally known what total liabilities by way of annuities, etc. the Fund will be called upon to meet.

"I have consulted the members of the London Committee on the subject. Their views are divergent, but the view unanimously held is that a definite expression of opinion at present time would be difficult if not impossible. Mr. Arthur Young, one of the members of the Committee, is about to leave for Malaya and he has kindly undertaken to confer with you and with the Central Committee of the Federated Malay States War Relief Fund, and to place you in possession of our several views on the subject.

"You will, however, observe from the copy of the statement of account, which I enclose, that on the 31st December, 1918, the balance in hand here was £34,556 6*s.* 8*d.* while the outgoings for the three months amounted to £512 8*s.* 7*d.*

"At the moment a sum of £30,000 is bearing interest at 5 per cent.—this amount will be increased to £31,000 on February 1st—£2,000 is earning 6 per cent. and £2,000, 3½ per cent.

I am, etc.,
(Sd.) W. T. TAYLOR.

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

THE FEDERATED MALAY STATES WAR RELIEF FUND AND SCHEME No. 2. STATEMENT OF ACCOUNT, 1st OCTOBER TO 31st DECEMBER, 1918.

Receipts.	Amount. £	s.	d.
Balance from last account...	32,541	6	2
Remittances from Planters' Association of Malaya ...	2,000	0	0
Refund by Malacca War Relief Fund of advance to Mrs.——in August, 1916	25	0	0
Interest on 5 per cent. War Loan	210	0	0
„ National War Bonds, 1927 and 1928 ...	255	11	7
„ Bank deposit	26	7	4
„ Current account	10	10	2
	35,068	15	3

Payments.	£	s.	d.	Amount. £	s.	d.
Grants and gratuities:						
Mrs. ——	25	0	0			
„ ——	30	0	0			
„ ——	30	0	0			
„ ——	20	0	0			
„ ——	15	0	0			
„ ——	20	0	0			
Miss ——	15	0	0			
Mrs. ——	50	0	0			
„ ——	30	0	0			
„ ——	30	0	0			
„ ——	30	0	0			
„ ——	9	0	0			
„ ——	30	0	0			
„ ——	50	0	0			
Mr. ——	15	0	0			
„ ——	25	0	0			
„ ——	50	0	0			
„ ——	25	0	0			
„ ——	10	0	0			
„ ——	1	0	6			
Postage, telegrams and sundries ...	2	8	7			
				512	8	7
Balance in hand				34,556	6	8
				35,068	15	3

The balance of £34,556 6s. 8d. is disposed as under:	£	s.	d.	£	s.	d.
Five per cent. War Loan (£12,000) at cost ..				11,400	0	0
Six per cent. Exchequer Bonds				2,000	0	0
Five per cent. National War Bonds... ...				18,000	0	0
Deposit in Chartered Bank				2,000	0	0
Balance of current account in Chartered Bank	1,381	18	4			
Less outstanding cheques	225	8	5			
				1,156	9	11
				34,556	9	11
Due to Treasurer ...					3	3
				34,556	6	8

(Sd.) W. T. Taylor.

I hereby certify that I have audited the above statement of receipts and payments with the books and vouchers of the Fund and find the same to be correct. The grants have all been duly authorized by the Committee.

(Sd.) A. H. Cullen,
Chartered Accountant,
Honorary Auditor.

73, Basinghall Street, E.C.,
27th January, 1919.

As regards the future of the Fund, he had seen Mr. Arthur Young and according to him the majority of the members of the London Committee were apparently of the opinion that no further money was required. They, however, were not unanimous, as a minority considered that the full ill-effects of the war would not be felt until months after peace had been signed and that therefore the Fund should be kept open. As regards annuities, the London Committee did not favour the purchase of such but preferred to make annual grants as the circumstances of the recipient often changed from year to year. The idea had been locally welcomed of handing over any remaining balance to the Planters' Benevolent Fund, but on this point of course they had to bear in mind (as Mr. Young had pointed out to him) that the whole of the War Relief Fund had not come from planters but that mining companies, merchants, etc., had likewise contributed. If therefore there was any balance they could only expect a *pro rata* contribution to the Planters' Benevolent Fund.

Mr. HARVEY thinks himself that the best plan was to close the Fund now. Anyhow the meeting had to come to a decision to-day and he would be glad to hear what members had to say. As regards future cases of hardship brought to their notice after the Fund had been closed, he had no doubt that there would be no difficulty in re-starting the Fund for such a purpose.

Mr. KENNEDY agrees with Mr. Harvey and he therefore moves "that this Association considers it advisable that the Association's War Relief Fund be closed."

Mr. TATE seconds the proposal.

Mr. LAWFORD thinks that as long as money was coming in it would be better to keep the Fund open.

Mr. MCCULLOCH disagrees and thinks it would be a pity to let it drag on and tail off. He thinks that the Fund had best be closed whilst it was in a flourishing condition.

Mr. TAYLER observes it was quite clear from what had been said and from the London accounts that there was no present need to collect money, and, if there was any future need, the Fund could soon be started again.

Mr. BAXENDALE could not speak for the Rubber Growers' Association but personally he quite agreed that the sums collected were ample and that in the event of any miscalculation the Fund could easily be re-opened.

Mr. BENNETT says that as no date was mentioned in the resolution he presumed that all money would be accepted as long as it was paid in.

The resolution is then put to the meeting and carried unanimously.

3.—DEMOBILIZATION.

The SECRETARY submits the following correspondence:

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"The question of demobilization was discussed at the General Meeting of this Association held on the 29th inst. when it was understood that His Excellency the General Officer Commanding

the Forces had prepared a memorandum on the existing regulations in connection with the Priority of Release from the Forces, and I was instructed to enquire whether this Association could be supplied with a copy of such memorandum for the information of its members.

"I have, etc.,
"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*

"THE HON'BLE
"THE CHIEF SECRETARY,
"FEDERATED MALAY STATES.
"KUALA LUMPUR."

"KUALA LUMPUR,
"*18th February, 1919.*

"No. 877/19.

"SIR,

"With reference to your letter dated the 31st January, 1919, on the subject of a memorandum, which you state you understand has been prepared by His Excellency the General Officer Commanding the Troops on the existing regulations in connection with the Priority of Release from the Forces, I am directed to inform you that there is in this office no copy of the memorandum or information other than that contained in your letter regarding any such memorandum.

"I have, etc.,
"(Sd.) W. MACKRAY,
"*Ag. Under Secretary to Government, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*20th February, 1919.*

"SIR,

"I have the honour to acknowledge receipt of your letter 877 of the 18th inst. and note that you have no copy of the memorandum referred to by me.

"I am now instructed to ask whether you will kindly obtain the memorandum in question from His Excellency the General Officer Commanding in Singapore.

"I have, etc.,
"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*

"UNDER SECRETARY,
"FEDERATED MALAY STATES,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*11th March, 1919.*

"No. 877/19.

"SIR,

"With reference to your letter dated the 20th February, 1919, I am directed to forward, herewith, a copy, which has been obtained from the Military Head-quarters, Singapore, of the memorandum prepared by His Excellency the General Officer Commanding the Troops, Straits Settlements, in connection with Priority of Release from the Forces.

"I have, etc.,
"(Sd.) M. S. H. MCARTHUR,
"*Under Secretary to Government, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

CIRCULAR LETTER TO ALL CONSTITUENT ASSOCIATIONS.

"KUALA LUMPUR,
"*12th March, 1919.*

"DEAR SIR,

"Please find enclosed memorandum on the 'Priority of Release' drawn up by the General Officer Commanding, copy of which I was instructed to obtain at the last General Meeting for the information of all members.

"Believe me, etc.,
"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*"

"MEMORANDUM.

"In the case of officers of the Indian Army Reserve of Officers applications for the release of officers should be forwarded to the Adjutant-General in India, supported by a statement of facts endorsed by a Government official to be deputed by the Governor. At the same time the person for whom it is proposed to ask for release should be instructed to submit an application through his Commanding Officer for release, stating that he has employment awaiting him so soon as he is released. He should state the country he joined from and whether he desires repatriation to that country or any other.

"These steps will take some time, for it must be recognized that the State has first claim on the services of these officers in view of the Declaration they signed when applying for a Commission.

"In the case of men serving in the New Armies, the following steps should be taken:

"1. If the person is an officer—

The firm or person applying for an officer should send a notification to the Controller, Appointments Department, Gresham House, Old Broad Street, London, E.C., that definite employment awaits him on his release. The nature and importance of this work should be clearly stated in the application which should be endorsed by (here state Colonial Secretary, Resident or other body to whom this duty is delegated).

"2. At the same time, the firm or person applying should instruct the individual for whom application is being made to submit his application for 'Priority Release' on A.F.Z. 15 if he has not already done so, and should send to the individual a copy of the letter, which has been sent to the Controller, Appointments Department, duly certified by an official (to be designated).

"3. If the individual has already submitted A.F.Z. 15 but has claimed priority for other reasons than the appointment in respect of which application is being made, he should notify his Unit Commander and show the letter offering the appointment.

"4. If a warrant officer, non-commissioned officer or soldier: The employer should send the application as mentioned in 1, to 'Employment Department,' Ministry of Labour, Claims and Record Office, Kew, and follow the routine outlined above as to endorsement. At the same time he should instruct the individual to submit his case on A.F.Z. 16—and if he claims 'priority' to submit also A.F.Z. 15 in the same manner as an officer.

"5. If the individual has already submitted A.F.Z. 16 and A.F.Z 15 but not in respect of the appointment which is now offered he should notify his Unit Commander and show his letter of appointment.

"In the case of an officer, the employer's and officer's application will come together at the Appointments Department, Old Broad Street, E.C., and in the case of a warrant officer, non-commissioned officers or man's at the Employment Department, Kew.

"It will be seen that some time must elapse before any man can be released. Further delay may occur in providing passages from the United Kingdom at the public expense.

"(Sd.) DUDLEY RIDOUT,
"*Major-General,*
"*Commanding the Troops, Straits Settlements.*

"MILITARY HEAD-QUARTERS,
"SINGAPORE,
"*22nd January, 1919.*"

4.—PASSAGE CONTROL.

"The SECRETARY submits the following:

Copy of telegram from Dr. Rattray to Secretary, Planters' Association of Malaya, dated 18th February, 1919.

"Doctor Black, Singapore, informs me that the 'Nore' and 'Novara' are requisitioned by Government to repatriate Germans. Strongly urge your Association lodge an emphatic protest on behalf of planting community whose members, wives and children should receive consideration before our enemies."

Copy of telegram from Mr. F. G. Harvey dated 19th February, 1919, to the Colonial Secretary, Singapore.

"On behalf British planting community whose wives or children demand consideration before Germans, desire make most emphatic protest against requisitioning passenger accommodation 'Nore' and 'Novara' by Admiralty. There are cases amongst planting community where immediate home-going is matter life and death. Make special appeal for control of passages according medical certificates, Germans to be class Z. Harvey, Vice-Chairman, Planters' Association of Malaya."

CIRCULAR LETTER TO ALL CONSTITUENT ASSOCIATIONS.

"KUALA LUMPUR,
"*13th March, 1919.*

"DEAR SIR,

"Enclosed please find copy of a letter which I have addressed to the Under Secretary and which I think is self-explanatory.

"I should be much obliged if you would kindly let me know by return the number of British planters and their wives and families in your district who are considered urgent or suitable cases for repatriation.

"Thanking you in anticipation,

"Believe me, etc.,
"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*"

"KUALA LUMPUR,
"*13th March, 1919.*

"SIR,

"I have the honour to address you on the subject of the 'Priority of Passages' to Europe, and to submit the urgency of appointing a Committee or Committees in this connection.

"Although with the help of the extra ship, which we understand is being sent out by the Ministry of Shipping, it may be possible to provide passages for all urgent cases before the end of April, yet the possibility remains that the rationing of passages may still be necessary.

"It is suggested that this Committee, if appointed now, would be able to ascertain the actual number of passages required which information is still not available. This Committee could also draw up a special form for applicants for passages to fill in and according to these returns and medical certificates attached to them classification of applicants could be effected. It would further ascertain the total passenger accommodation available from this country.

"In the opinion of this Association special legislation will not be necessary since the Passport Officers of the Colonial Government could be instructed to regulate the issue of passports according to the certificates issued by the Priority Committee.

"I am asking all Constituent Associations for returns of the number of British planters and their wives and families who are considered urgent or suitable cases for repatriation, and, as soon as I get this information, I shall be glad to forward it to you.

"I have, etc.,

(Sd.) "H. C. E. ZACHARIAS,

"*Secretary.*

"UNDER SECRETARY,

"FEDERATED MALAY STATES,

"KUALA LUMPUR."

"KUALA LUMPUR."

"*13th March, 1919.*

"DEAR SIR,

"Enclosed I beg to hand you copy of a letter I have to-day addressed to the Under Secretary, and I am instructed to suggest, if you approve of the same, that your Chamber address a similar request to the Government.

"Believe me, etc.,

"(Sd.) H. C. E. ZACHARIAS,

"*Secretary.*

"GENERAL SECRETARY,

"F.M.S. CHAMBER OF COMMERCE,

"KUALA LUMPUR."

"KUALA LUMPUR,

"*27th March, 1919.*

"No. 1774/19.

"SIR,

"With reference to your letter of 13th March, 1919, on the subject of priority of passages to Europe, I am directed to invite your attention to Notification No. 38, published in the *Straits Settlements Government Gazette* of 18th March, 1919, containing regulations for the control of passages from the Straits Settlements to Europe by British vessels.

"I have, etc.,

"(Sd.) W. MACKRAY,

"*Ag. Under Secretary to Government, F.M.S.*

"SECRETARY,

"PLANTERS' ASSOCIATION OF MALAYA,

"KUALA LUMPUR."

"*Extract from the 'Straits Settlements Government Gazette Extraordinary' of the 17th March, 1919*:

"No. 402.—PASSENGER ACCOMMODATION BY S.S *Marama*.

"His Excellency the Governor received from the Secretary of State for the Colonies on the 16th instant a telegram to the effect that the ambulance transport *Marama*, which is now on the way from New Zealand to the United Kingdom, will be specially diverted to Singapore. Accommodation, mostly in cots and a few superior berths in cabins, is for about 500 passengers.

"The s.s. *Marama* will leave Singapore, calling at Penang about the first week in April.

"Applications will be received by the Singapore Passage Controller. The application must set forth the following particulars:

"Name and address;
"Age and sex;
"Nationality;
"Length of total residence in the tropics;
"Length of last residence in the tropics;
"Number of children with particulars of age and sex;
"Reasons for return to Europe;
"Whether the applicant has been promised a passage by any other steamer.

"All information will be regarded as confidential. Medical certificates should be forwarded in original.

"Letters should be addressed to the Passage Controller, c/o. the Colonial Secretariat, Singapore."

"A list of all the applications for passages of wives and children of Government officers which have been received up to date in the Chief Secretary's Office is being sent from that office with medical certificates, if any, to the Passage Controller.

"A similar list, accompained by medical certificates, if any, of Government officers to whom leave has been granted and who are awaiting allotment of passages is also being sent to the Passage Controller."

Mr. HARVEY asks whether any members had any first hand information of conditions on board the s.s. *Marama*.

Four members present then read extracts from letters received by them from relatives on board the ship.

Dr. DAY, invited by the Chairman to speak on the subject, recalls the circumstances under which this ship had been provided, beginning with the cable sent by the High Commissioner in December (which had never been replied to), leading on to the requisitioning of the "Nore" and "Novara" for Germans repatriated from China; how later Mr. Kindersley and others had made strong representations to the Government for a ship to be procured to take away their wives and children; how the United Malaya Council at their last meeting in February had made further strong representations and how finally the *Marama* had been sent as a relief ship. But apparently healthy people were sent by the ship together with invalids, and he was afraid that sufficient care had not been exercised, to ensure the more serious cases of illness

being given priority as regards passages. When he went on board the steamer in Port Swettenham there was apparently no milk on board and in Penang conditions seemed pretty bad, but it was hoped that things would improve and everybody settle down satisfactorily after a day or two. However, from the extracts of letters they had just heard and from letters he had received himself from Colombo, the ship appeared to be short of drinking water and the condition on board with general sea sickness and all port holes closed, with no attendants and insufficiency of sanitary arrangements must have been indescribable. The whole business seemed to afford a close parallel to the original Mesopotamia scandals and like them entirely due to mismanagement. He considers that it was up to the fathers and husbands of the passengers to see this thing through. (*Loud applause.*)

Mr. Mooijaart agrees that this seemed one of the gravest cases of suffering, due to avoidable error, that had ever come before the Association, all due to the absolute incompetence of those responsible. They could now do very little, if anything, to alleviate the suffering as by this time the *Marama* must be about 36 hours from Marseilles, but he thinks it was their duty to make every endeavour to fix the responsibility for this gross scandal on the proper shoulders so that whoever it was should be brought to court. He therefore proposes that a cable be sent to the Rubber Growers' Association Committee in London to form a Committee which, if possible, should go on board on arrival and make the strictest enquiries with the main idea of fixing the responsibility.

Mr. Kennedy seconds the proposal which is supported by Mr. Harvey.

Mr. King-Harman asks whether it would not be better to appeal to somebody higher than the Rubber Growers' Association, *i.e.*, the Home Government.

Mr. Harvey points out that the Rubber Growers' Association no doubt would obtain Government assistance.

Mr. Monteith thinks that the Board of Trade was the proper authority as every ship was supposed to conform to certain regulations as regards sanitation, overcrowding, etc.

Mr. Lane thinks that regarding the overcrowding surely somebody out here was responsible.

Mr. Baxendale enquires whether it was not the general public rather than the planters that were concerned in this matter and whether therefore it was not rather a matter for the Straits Settlements Association than for the Rubber Growers' Association.

Mr. Jeavons says that unless the cable went "urgent" there was little chance of its getting there in time.

Mr. Harvey observes that it was not vitally important that the cable should reach London before the arrival of the *Marama*.

Mr. Mooijaart wishes to amplify his original proposal and moves "that a cable be addressed to-day to the Rubber Growers' Association asking for a Committee of Enquiry to be immediately started to enquire on arrival, if possible, into alleged hardships on board the s.s *Marama*, due to overcrowding, insufficient staff,

insanitary arrangements, etc., with the view of fixing the responsibility should such allegations prove well founded; suggesting also their approaching the Board of Trade, Colonial Office, Admiralty and the Straits Settlements Association."

Mr. KENNEDY seconds the proposal in this form and it is carried unanimously.

Mr. LANE believes that the maximum number of troops originally carried by the *Marama* was 400.

Mr. LAMOTTE had been shown over the ship and been told that formerly it had carried 560 cot cases but was only capable of accommodating 420 passengers.

Mr. KING-HARMAN asks whether the Society of Estate Medical Officers would not take the matter in hand as well.

Dr. DAY replies that they had already cabled to their representative in London.

Mr. KENNEDY proposes that a copy of the resolution be sent to the Chamber of Mines and to the Chambers of Commerce of the Federated Malay States, Penang and Singapore with a view of their taking similar action.

This is seconded by Mr. TAYLER and carried unanimously.

Mr. HARVEY thinks that what was needed particularly was a proper Board of Control in Singapore. The shortage of shipping was more acute than ever and 430 people were shut out of the *Marama* alone. The trouble was that there was no proper classification and grading, and he would therefore propose "that the Colonial and Federated Malay States Governments be approached with a view that a Board of Control be formed immediately consisting mainly of medical practitioners to classify passages so as to ensure priority being based upon considerations of health."

Mr. JEAVONS seconds this proposal, which is carried.

5.—LABOUR.

The SECRETARY lays on table papers on Tamil immigration (*vide* Appendix), as also the following letters:

"KUALA LUMPUR,
"*4th April, 1919.*

"No. 212/19.

"SIR,

"I have the honour to enclose herewith for the information of your Association a copy of a letter, dated 24th March last, received from the Superintendent of the Emigration Depôt, Negapatam, on the subject of recruiting being stopped in the district of Malabar owing to the prevalence of cholera, plague and small-pox."

"I have, etc.,

"(Sd.) J. R. O. ALDWORTH,
"*Controller of Labour, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"NEGAPATAM,
24th March, 1919.

"No. I.E. 6/19.

"SIR,

"I have the honour to report that two cases of cholera occurred in the depôt last week among Malayalam coolies.

"2. I evacuated the depôt of all Malayalams (246½ tickets) paying their trainages out of the Branch Immigration Fund to their homes.

"3. I have closed the Malayalam district to recruiting till cholera, plague and small-pox cease to be prevalent in epidemic form.

"4. Recruiting in the Cuddalore area, which had been closed since September, 1918, has been resumed and coolies from this area are now passing through this depôt."

"I have, etc.,

"(Sd.) J. C. C. FORD,
"*Superintendent, Emigration Depôt,*
"*Negapatam.*

"THE DEPUTY CONTROLLER OF LABOUR,
"PENANG."

"LABOUR OFFICE,
"PENANG,
"*9th April, 1919.*

"No. 7 in I. I. O. (Misc.) 729/19.

"SIR,

"I have the honour to inform you that the Avadi depôt, which had been closed on account of cholera, was re-opened on the 21st of March and that recruiting has been resumed in those *Taluqs* which are free from cholera except those in the Northern Circars, from which for the present it is not considered safe to recruit.

"I have, etc.,

"(Sd.) E. W. F. GILMAN,
"*Deputy Controller of Labour, Penang.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"Reverting to my letter of 13th December, I have the honour to inform you that the General Meeting of this Association held on the 29th inst. confirmed the resolution forwarded by the Standing Committee, but desired to extend it so as to include Chinese, etc., labour; the resolution actually passed reading:

"'This Association views with concern the present shortage of labour in this country and considers that all restrictions in respect of age and for passports in the case of Tamil labour be removed; that

adequate shipping be provided to bring over at least 150,000 persons from India, and that the Controller of Labour be asked kindly to support this request and to enlist the High Commissioner's good offices with the Indian Government, and also in regard to the provision of shipping for Chinese labour.'

"I have, etc.,

"(Sd.) H. C. E. ZACHARIAS,

"*Secretary.*

"CONTROLLER OF LABOUR, F.M.S.,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*31st January, 1919.*

"No. 582/18.

"SIR,

"I have the honour to acknowledge receipt of your letter dated to-day forwarding a copy of a resolution passed by the General Meeting of the Planters' Association of Malaya on the 29th January current regarding the present shortage of labour in this country.

"2. I have every sympathy with the resolution and in transmitting it for His Excellency the High Commissioner's consideration shall emphasize the importance of providing shipping for the conveyance of labourers from China as well as India.

"3. "The present shortage of labour in this country is due to the insufficiency of shipping and not to restrictions in respect of age. It does not seem to be generally recognized that last year until October practically every ship carried its full complement of passengers and that in spite of restrictions many thousands of would-be emigrants had to be refused.

"4. October, owing to the influenza, was a bad month, but in November and December in spite of age restrictions, influenza, cholera and shortage of shipping the numbers brought over were well above the average for those months.

"5. The number brought over this month is 2,548—a number never exceeded in January except in 1913 and 1918, and in 1916 when the excess was only 30. Such a result in a January when adults under 25 are barred, when the number of kangany licences is less than usual and when a severe outbreak of cholera is following closely after the epidemic of influenza, should be a matter of congratulation and appears to me to justify optimistic anticipations of the numbers that may be expected to arrive when the cholera abates, restrictions are withdrawn and sufficient shipping is available.

"6. I received a cable yesterday from Mr. Gilman, who is now in Madras, saying:

> 'Negapatam January number shipped is more than last year. Shipping 1,200 'Fultala.' Recruiting prospects are encouraging. Three hundred and fifty detained Avadi provided no further cases (of cholera) shipments to be commenced 10th February.'

"7. I have given these figures because I notice in the press that many members of the Association seem to be under the impression that it has not been so easy to recruit labour during the year 1918 as in former years. This impression is contrary to the facts of the case and there is no doubt that very large numbers of labourers would have been brought over had shipping been available.

"8. I am fully alive to the fact that there is a demand for many more labourers than have been required in the past and that additional facilities may have to be furnished; this is, however, no reason for the belittlement of what has been done in the past nor for despondency as to what can be accomplished in the future.

"I have, etc.,

"(Sd.) J. R. O. ALDWORTH,
"*Controller of Labour, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"I have the honour to acknowledge receipt of your letter 15/578 of 15th January, which I submitted at our General Meeting held yesterday, and, in view of your observations, members of this Association are being asked to hand the licences in question to the kanganies in unsealed envelopes.

"As regards the issue of recruiting licences, a resolution was carried unanimously 'that the Indian Immigration Committee be asked to reconsider the restriction of recruiting and, if restriction is still necessary, to limit the number of coolies to each estate in proportion to requirements, instead of cutting down the number of licences.'

"I have, etc.,

"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*

"SECRETARY,
"INDIAN IMMIGRATION COMMITTEE,
"PENANG."

"OFFICE OF THE CONTROLLER OF LABOUR,
"FEDERATED MALAY STATES,
"KUALA LUMPUR,
"*31st March, 1919.*

"No. 119/19.

"SIR,

"I have the honour to inform you that the subject of paragraph 2 of your letter dated 31st January last, addressed to the Secretary to the Indian Immigration Committee, was discussed at length at the

last meeting of the Immigration Committee held on the 11th March current, and that it was decided to inform your Association that from a business point of view the proposal is an impracticable one and as such cannot be acted upon.

"Doubtless you will have seen the account of the discussion in the report of the meeting in the *Malay Mail* of the 24th March.

"I have, etc.,

"(Sd.) J. R. O. ALDWORTH,
"*for Secretary, Indian Immigration Committee.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*30th January, 1919.*

"No. 5619/18.

"SIR,

"With reference to your letter of the 5th December last, on the subject of the recent outbreak of cholera at Telok Anson, I am directed to inform you that, as a result of enquiries made, the Colonial Authorities report that the practice at the Pulau Jerejak Quarantine Station, in respect of coolies from infected ships, was until November last, that the coolies were kept in quarantine until after seven clear days from the date of isolation of the last case, and that they then proceeded to their destination. Estate managers were not informed that coolies who proceeded to their estates after quarantine had travelled in an infected ship.

"2. The Chief Secretary is informed that on the 14th November instructions were issued that, in future, when coolies arrived in an infected ship, the managers of the estates to which, after quarantine, they proceeded should be notified that the coolies had travelled in an infected ship; and that instructions have also been issued that the Pulau Jerejak Quarantine Station is to notify infectious diseases in the same way that Penang notifies them.

"I have, etc.,

"(Sd.) M. S. H. MCARTHUR,
"*Under Secretary to Government, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"I have the honour to inform you that a batch of 17 Malayali coolies for Shanghai Seremban Estate arrived on 27th December ex s.s. *Fultala* at Port Swettenham.

"On 30th December the manager was informed that one of these coolies had been admitted to the infectious diseases hospital and had died of cholera.

"On 1st January four more coolies were admitted to the infectious diseases hospital and on 5th January yet one more (who died on the same day of cholera). On 9th January four coolies of this batch arrived on the estate; and on 15th January the manager was informed that seven coolies had absconded from the Quarantine Camp.

"From the above it seems clear that the seven coolies were suspected coolies, as otherwise they would have been allowed to proceed to the estate on the 9th with the four other coolies of the same batch.

"The matter came up for discussion at the General Meeting of this Association held on the 29th instant when I was instructed to communicate with you on the matter, as it is a matter of grave public concern, that cholera contacts should be able to roam the country; and to enquire what steps are being taken to prevent a recurrence.

"I have, etc.,

"(Sd.) H. C. E. ZACHARIAS,

"*Secretary.*

"PRINCIPAL MEDICAL OFFICER,
"KUALA LUMPUR,"

"KUALA LUMPUR,

"No. 2 in 101/19. "*2nd April, 1919.*

"SIR,

"In reply to your letter of 31st January, 1919, I have the honour to express regret that some labourers quarantined at Port Swettenham escaped. This department has requested the Police Authorities, responsible for guarding the Camp, to supervise the sentries as carefully as possible, and I am informed a larger guard will be provided in future.

"I have, etc.,

"(Sd.) C. LANE SANSOM,

"*Principal Medical Officer, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,

"No. 970/19. *1st April, 1919.*

"SIR,

"I am directed to inform you that Mr. L. Mooijaart of Golconda Estate, Kapar, has been offered and has accepted nomination as Visitor to the Quarantine Camp and Depôt at Port Swettenham in place of Mr. W. Parry Okeden of Bukit Rajah Estate.

"I have, etc.,

"(Sd.) W. MACKRAY,

"*Ag. Under Secretary to Government, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

Mr. TAYLER says as the papers (in the Appendix) were merely laid on the table and, in view of the very excellent information and data contained in this pamphlet, he would now like to propose "that a sub-committee be appointed to consider the information available and to draft recommendations arising therefrom for consideration by the Planters' Association of Malaya and submission to Government." There were some excellent proposals made by Mr. Gilman and other gentlemen before them which were in the nature of a very constructive criticism and they must also be under great obligation to Dr. Brooke for his contribution. The only regrettable memo was from the Senior Health Officer, Federated Malay States, which was merely destructive and did not help them in any way. As soon as more ships were available it was important that they should have everything in complete order and, with the information before them, they could now go straight ahead.

Mr. FERGUSON seconds the proposal.

Mr. KENNEDY agrees but thinks that as regards Preventive Quarantine it was unnecessary to consider this point any further. Opinion had been obtained from everybody and they also had the opinion of their own Malay Peninsula Agricultural Association Agent in India who all agreed that it would not be in the interest of recruiting to do away with Preventive Quarantine.

Mr. HARVEY quite agrees with what Mr. Kennedy had said and that it seemed that all men with experience of recruiting in India were agreed on this point but that of course was in no way antagonistic to Mr. Tayler's proposal, and he would therefore now put that to the meeting.

The proposal is carried.

Mr. TAYLER suggests that the composition of the sub-committee be left to the Standing Committee.

Agreed to.

Mr. KENNEDY proposes that the thanks of the Association be conveyed to Drs. Brooke and Ford and Messrs. Gilman and Bathurst for their constructive criticism.

Agreed to.

Mr. KING-HARMAN wishes to draw attention to two matters so that the Standing Committee might take action if they had not done so already. The first item referred to the issue of kangany licences and the second to the publication of certain regrettable affairs, as for instance, assaults on coolies of which a case was reported in the *Malay Mail* of 10th February, in which the manager and assistant had been fined $200 and $400, respectively. He could imagine that this case would be exploited by the Indian press and he thinks that this was the sort of thing which made recruiting harder than anything else.

At the invitation of the Chairman,

Mr. T. K. SWAMINATHEN, Editor of the *Indian Emigrant* thanks the meeting for allowing him to address them. He happened to be here on a visit and he quite agreed with the last speaker that there was some strong feeling in India against the emigration of

Indians into Malaya, but that was due entirely to the ignorance of those people regarding the conditions prevailing here which he had no hesitation in saying were quite as good if not better than he had seen anywhere else. Cases like the one mentioned gave uninformed people quite a wrong idea but of course they occurred very infrequently and were properly dealt with, but for all that he feels that with the advantages of Malaya immigration could be still larger and he thinks that this could be achieved by adopting a proper system of colonization and starting co-operative societies for the labourers. Just now with the necessity of their producing more food they must realize how important it would be for this country if there was a reserve of say 10,000 acres on which there were Tamil settlers growing rice, ragi, etc. If they gave each family three acres and settled 3,000 labourers here many more would follow them and this country would soon be in the position of Guiana which had been in a very similar position before and had had to import all its food from abroad but now was actually exporting rice after having gone in for colonization of Indians on a large scale. (*Applause*).

Mr. HARVEY says that it would interest Mr. Swaminathen to know that this question of colonization and co-operative societies was actually being considered by Government and by their Association. As regards this country, Mr. Swaminathen had been sufficiently long here to know that all questions had always two sides and he hopes that he would use his influence with a certain section of the Indian press to disabuse their minds of the idea that conditions for coolies in Malaya were ruled by anything but strict fairness.

Mr. FERRERS proposes "that the statement made by the labourers for certificates issued to them by the Labour Department in lieu of Discharge Notes be taken on oath." This matter had originated at their District Association. At present a Tamil labourer could go to the Assistant Controller of Labour and make any statement he liked, but no action was possible if his statements were untrue because the evidence had not been taken on oath. For instance, a cooly might abscond and give a false name, etc.

Mr. TAYLER did not think that the resolution, if carried, would be of much use.

Mr. MONTEITH seconds the resolution which is then put to the vote and declared carried by 15 votes to 6, and the Secretary is instructed to forward same to the Controller of Labour.

6.—ESTATE HOSPITALS.

The SECRETARY submits the following correspondence:

"38, EASTCHEAP,
"LONDON, E.C. 3,
"*6th March, 1919.*

"DEAR SIR,

"GENERAL MATTERS.

"*Medical—Estate Hospitals.*—With reference to the Planters' Association of Malaya minutes of 25th November, 1918, I think you will like to be posted with regard to discussions at meetings of my

Council on the subject of medical research. In 1917 following on a communication from Dr. Malcolm Watson to Mr. Norman Grieve, the Council appointed a sub-committee consisting of Mr. Norman Grieve (as Convener) Mr. F. W. Barker, Mr. P. J. Burgess, Mr. Charles Emerson, Mr. R. W. Harrison, Major E. A. O. Travers, R.A.M.C.; subsequently Mr. E. Macfadyen and Dr. Watson (after his arrival in England) were co-opted to the Committee.

"The attached reports of the Committee to the Council will give you the steps taken by the Rubber Growers' Association to date. Dr. Watson was invited to address the Council at their meeting on the 6th January, 1919, and, during the course of his remarks, gave interesting figures and statistics regarding the health conditions of the labour force in Federated Malay States.

"I have shown the extract from the Planters' Association of Malaya minutes to Mr. Norman Grieve and he would be greatly obliged if you would keep me advised of the progress of events in Malaya.

"I cannot find the draft Bill in the *Gazette* and if you can let me have a copy I shall be obliged.

"The following extract from minutes of a meeting of the Borneo Chamber of Commerce held on 21st December, 1918, will give you an idea of what they think of Government hospitals:

"'A resolution from the West Coast Branch was read, to the effect that the attention of Government should be drawn to the deplorable condition of their hospitals, their utter lack of quarantine stations, and their indifference in general to the health of the State.'

"Yours faithfully,

"(Sd.) FRANK G. SMITH,

"*Secretary.*

"H. C. E. ZACHARIAS, ESQ.,
"12, MARKET STREET,
"KUALA LUMPUR, F.M.S."

ITEM NO. 8—REPORT OF MEDICAL RESEARCH COMMITTEE.

A meeting of the Medical Research Committee was held on 9th January, when the following business was transacted:

As sanctioned by the Council at its last meeting Dr. Malcolm Watson was unanimously co-opted a member of the Committee.

The following letter was drafted and approved and ordered to be despatched forthwith to the Under Secretary of State for the Colonies:

"*9th January, 1919.*

"'The Council of this Association, being desirous of approaching you on the subject of the medical treatment of the Indian emigrants employed on the rubber properties in the Malay Peninsula, beg to forward for your perusal several reports made at different times by the private practitioners now engaged in the work of managing the estate hospitals in which the labourers are treated.

"'The Council would draw your attention to the remarkable results achieved under the estate hospital system in reducing the death-rate, which obtained prior to its introduction, from 62.9 per mille in 1911 on a population of 143,614 to 18.17 per mille in 1917 on a population of 214,972 (Pamphlet C, page 4).

"'It appears that a scheme is on foot, founded, my Council believe, on a misconception of the facts, as the official correspondence shown (paper No. 7 of 1918, Federated Malay States) to alter the present system which has been developed at great expense to the estates, into a system of central hospitals, administered by the local Government.

"'In the opinion of my Council and I believe, of all those who have had practical experience in dealing with Indian labour in the Malay States and in Ceylon, such a change would be a grave mistake, and not in the interests of the cooly, whose welfare, presumably, the Indian Government has at heart.

"'This opinion is fully confirmed by the recent reports on Indian labour emigrating to Ceylon and Malaya. The Commissioners, Messrs. Marjoribanks and Tamby Marakkayar, report fully on the point (*see* Pamphlet B, page 2).

"'This letter, I need hardly say, is a mere outline of the question at issue, and my Council have the honour to request that, at an early date, you will be pleased to receive a deputation, when details of the case can be more fully put before you.'

"The following reply was received, under date 24th January:

'I am directed by Viscount Milner to acknowledge the receipt of your letter of the 9th January with regard to the medical treatment of Indian immigrants employed on rubber estates in the Malay Peninsula, and to inform you that he has not yet received Paper No. 7 of 1918 concerning the alteration of the existing system of estate hospitals into a system of central hospitals administered by the local Government. The High Commissioner for the Malay States has, however, been requested by telegraph to furnish a copy, with his observations on the matter, and it would, in Lord Milner's opinion, be more convenient if the proposed discussion could be postponed until he has received the High Commissioner's proposals.'

"Signed on behalf of the Committee,

"Norman W. Grieve,

"*Convener.*"

Adopted by Council on 3rd February, 1919, the Convener intimating that he understood that operation of the new Enactment had been postponed for three years.

Item No. 9—Report of Medical Research, Federated Malay States Sub-Committee.

The Committee have carefully considered the important question of establishing a properly equipped laboratory and of the appointment of qualified entomologists to carry on research work in the Federated Malay States.

Two meetings have been held, which were attended by all members, with the addition, at the second meeting, of Mr. E. Macfadyen, who was co-opted and was kind enough to attend.

After a very full discussion it was decided to report to the Council as follows:

"(*a*) That owing to the difficulties presented by the war in procuring the services of scientific men, also to the impossibility, at the present time, of obtaining the necessary equipment for starting a laboratory, it was out of the question that anything should be done till after the war.

"(*b*) The Committee suggest that it would be neither necessary nor desirable to bring into existence a separate administrative organization. The employment of one (and perhaps later more) entomologists and provision of such housing accommodation as might prove necessary could be undertaken without any new establishment by appointing a strong sub-committee of our local representative body to direct their operations and we are emphatically of opinion that Dr. Watson should be invited to join such sub-committee. The business side of these arrangements could be placed under our existing administrative staff and should involve little, if any, additional expense beyond the salary or salaries of scientific workers.

"(*c*) The Committee understand that a most suitable man, who has already done valuable work in the Malay States as an Entomologist, is at present employed by Government in one of the theatres of war.

"If, when these activities come to an end, his services could be obtained in the Federated Malay States the Committee think that, having regard to his past experiences in that country he would be admirably suited to fill such a post as it is desired to create.

"(*d*) The Committee were unanimous in the belief that the whole subject of sanitation and medical research was one vitally affecting the rubber industry in the Malay Peninsula, and that the expense connected with its full and continuous investigation was a trifling matter compared with the results which it is confidently hoped would accrue to the whole community by the application of the best scientific knowledge in its treatment.

"I have, etc.,

"(Sd.) NORMAN W. GRIEVE,
"*Convener of Committee.*"

Adopted by Council, 4th June, 1917.

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"I have the honour to revert to your letter 987 of 31st August, 1918.

"The Labour Code Amendment Bill was duly considered by the Standing Committee of this Association who submitted a memorandum thereon to the General Meeting of the Association held on 29th January, when the said memorandum was unanimously approved of.

"I am now instructed to forward to you for the Hon'ble the Chief Secretary three copies of the memorandum in question as containing the views of this Association on this draft measure.

"I have, etc.,
"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*

"UNDER SECRETARY,
"FEDERATED MALAY STATES,
"KUALA LUMPUR."

"KUALA LUMPUR,
10th February, 1919.

"No. 830/19.

"SIR,

"I am directed to acknowledge receipt of your letter dated the 31st January, 1919, forwarding three copies of a memorandum containing the views of the Planters' Association of Malaya on the Labour Code Amendment Bill of the 30th August, 1918, and to inform you that the memorandum will receive careful consideration.

I am, etc.,
(Sd.) W. MACKRAY,
"*Ag. Under Secretary to Government, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

"KUALA LUMPUR,
"*17th April, 1919.*

"No. 207/19.

"SIR,

"With reference to previous correspondence on the subject of the desirability of engaging midwives on estates, I have the honour to inform you that the Emigration Agent has received several applications from midwives for employment in Malaya.

"2. I have no doubt that you will pass this information to the members of your Association with a request that applications for the services of midwives be addressed to the Emigration Agent, Federated Malay States and Straits Settlements, 9/10, Jaffer-Serang Street, Georgetown, Madras.

"I have, etc.,

"(Sd.) J. R. O. ALDWORTH,
"*Controller of Labour, F.M.S.*

"THE SECRETARY,
"PLANTERS' ASSOCIATION OF MALAYA,
"KUALA LUMPUR."

The meeting then adjourns from 1 to 2.15 p.m.

Mr. MCCULLOCH says he found a proposal standing in his name—*viz.*, "that in future a clause be inserted in land grants specifying the number of agricultural labourers to be recruited by the grantee." He was not responsible for the wording but the intention was clear—*viz.*, that the shortage of labour was so acute throughout the country that it seemed to him only reasonable that some measure of protection was called for on behalf of those who had already developed land. He did not mean to propose anything that would be irksome to people who wished to open up small areas but when it came to tracts of ten or twenty thousand acres of land being opened up in one year in any one district it was bound to upset the labour conditions in that district completely. He would therefore now propose that Government be asked to insert a labour clause in all new titles for areas of 1,000 acres and over or to adopt such other measures as may be deemed preferable to ensure that for every four acres of such new land opened up one cooly will be recruited by the proprietors from outside Malaya.

Mr. TAYLER seconds the proposal which seemed to him to cover a very important matter.

Mr. FALLON objects to limit the proposal to areas of more than 1,000 acres.

Mr. WATERFIELD wishes to know whether the proposal was to hold good for one year only, or whether it would be applied every year.

Mr. LAWFORD considers one cooly for four acres quite insufficient.

Mr. MCCULLOCH replies that smaller areas than 1,000 acres hardly affected the labour position and that his proposal of course was meant to apply once only and not every year. The reason why he had decided on one cooly for four acres was that the present cooly statistics showed that there was one cooly employed per 3.7 acres.

Mr. QUARTLEY dissents and thinks 1 in 4 too many. The idea of employing 250 coolies in the up-country to open up 1,000 acres of land was fantastic.

Mr. BENNETT says that the men who got 1,000 acres did not necessarily want to open up those 1,000 acres in one year but it was more likely that they would want to open up 100 acres at a time. What would he do in that case with all the extra labour he was required to engage?

Mr. JEAVONS thinks that the number ought to be increased to one cooly per two acres and with that amendment he would be prepared to support Mr. McCulloch.

After some discussion, Mr. McCulloch and Mr. Jeavons agree to insert "one cooly per three acres" in the proposal moved by Mr. McCulloch which is then seconded by Mr. Jeavons and put to the meeting.

The CHAIRMAN declares the vote to be equal (14:14) and he therefore would give his casting vote against it, as he did not think that the present meeting quite grasped all that they committed themselves to in adopting this resolution. He therefore gave his casting vote against the proposal to-day only but reserved his opinion until the matter came up for discussion again. He thinks it might be brought up again at the next meeting when the matter had been properly considered by all Constituent Associations. (*Applause.*)

Mr. FERGUSON seconds this proposal, which is carried unanimously.

7.—FOOD.

The SECRETARY submits the following correspondence:

"KUALA LUMPUR,
"*31st January, 1919.*

"SIR,

"I am instructed to inform you that the question of rice supplies was discussed at the meeting of this Association held on the 29th inst.

"Whilst it is recognized that a sufficient supply is assured for the next six months, a fear was expressed that a situation might then recur similar to the one from which this country is only just emerging, and I was consequently instructed to enquire, whether any steps have been considered to safeguard the future supply of imported rice after the present harvest is exhausted.

"I have, etc.,

"(Sd.) H. C. E. ZACHARIAS,
"*Secretary.*

"THE HON'BLE MR. F. S. JAMES,
"FOOD CONTROLLER,
"SINGAPORE."

"FOOD CONTROLLER,
"SINGAPORE,
"*6th March, 1919.*

"No. 3 in D. F. C. No. 34.

"SIR,

"In reply to your letter of January 31st on the subject of the future rice supplies of Malaya I have the honour to inform you that, owing to the unfavourable monsoon, rice crops are far below the average in all Eastern countries and that this, coupled with a world food shortage and the uncertainty of the demand for rice in European countries, makes it extremely difficult to guarantee anything as regards rice supplies.

"2. The following statement of the position is for the information of your Association.

"*Supplies from Burma.*—Malaya has been in the most favourable position possible as regards supplies from Burma. Her normal monthly consumption of 13,000 tons * of Burma rice has been promised and a special grant of 10,000 extra tons for the first quarter obtained and brought over. Moreover, the price of this supply is being effectively controlled. Owing, however, to the lateness and shortage of our own crop it has been necessary to draw supplies of parboiled rice against this strictly limited allowance and, owing to the high cost of Siam and Saigon rice, two persons out of three instead of one out of three desire to eat Burma in place of Siam rice with the result that, although we are getting our normal supply, there is an apparent shortage. Owing to the famine conditions in India, it is not possible for the Indian Government to promise us any increase above the allowance which covers our ascertained normal consumption.

"*Siam and Saigon Supplies.*—There is an ample supply of both these rices at present and no restriction on the export thereof from Singapore or Penang to the Federated Malay States, but the price is high and it is not possible for this department to control it as the local price is based on the price cost at Bangkok and Saigon plus the cost of transport and handling.

"The curtailing of the Indian supply to Java, Sumatra, Japan and other non-British countries in the East has resulted in a heavy run on these two sources of supply and in exceptionally high prices. All attempts by Government to make forward contracts at a reasonable rate or to reduce the cost of rice by buying on Government account have so far met with no success. The supply of these rices, of which Malaya at present holds nearly enough for two full months' consumption, is at present ample, but, owing to the heavy buying by other countries and the possibility of heavy demands for Europe, it is not possible for the Food Controller to guarantee that supplies from these markets will still be abundant at the end of the year as the available surplus for export in both these countries is below the normal.

* Since reduced to 7,000 tons.

"*Local Crop and Parboiled Supplies.*—Although a larger area than ever before has been planted up with rice in Malaya the failure of the monsoon has reduced our local crop to about 60 per cent. of the normal. Moreover, owing to the high price of Siamese rice, many persons who usually eat Siam rice will convert local padi to hand-pounded rice for their own food. The impending shortage in our own supply was clearly recognized and the Food Controller arranged for a supply of 30,000 bags of Indian parboiled to carry the country over the February shortage. This supply was brought over and the price thereof controlled but is now exhausted. As, however, the demand for white Burma rice was abnormal it was not possible to make similar arrangements for March, unless India granted us a supplementary supply, and, this being refused, we are obliged to rely for the present on our own crop. This being both poor and late there is a temporary shortage of parboiled rice, but with the local crop coming in the shortage should be purely temporary, especially as everything possible is being done to control the available local padi and get it into the mills. The Controller will take every possible steps to keep a check on the local supply and to arrange such import from Burma to supply the deficit as circumstances from time to time permit, but it is not possible to subordinate the needs of all other rice eaters to those of the local Indian population and therefore not possible to guarantee an adequate supply of parboiled rice throughout the year, though every effort will be made to secure it.

"Siamese padi for parboiled rice could with the present cost of padi in Siam only be imported at a prohibitive price.

"With the present world shortage of food-stuffs the only adequate guarantee against shortage is increased local food production.

"A Director of Food Production was appointed on 12th February, 1919, with the idea of increasing the local production of food-stuffs in order to relieve the present position and act, as an insurance against acute shortage in future should there again be a similar falling off in imported supplies. The Controller has power to order that a proportion of any land held on agricultural lease be devoted to the growing of food-stuff, and may commandeer the necessary labour for the purpose.

"The encouraging of local food production is a step in the right direction, though it may be doubted if production on a scale sufficiently large to appreciably affect the position can be carried on in a country where the resident population is so extremely sparse, and where the supply of labour imported for the existing industries is in a chronic state of failing to meet the demand.

"I have, etc.,

"(Sd.) Y. R. D. Oldman,
"*Secretary to the Food Controller.*

"To Secretary,
"Planters' Association of Malaya,
"Kuala Lumpur."

Mr. HARVEY places on table notes on the substitution of wheat and flour for rice drawn up by Mr. I. H. Burkill. He would add that a couple of days ago it had been decided that a deputation should wait on His Excellency the High Commissioner to import a sufficient supply of flour from Australia to make up for the rice deficiency and he understands that His Excellency was quite in sympathy with that proposal. Mr. Clodd, who had this matter in hand, was this very morning asking a question in the Federal Council on the subject.

A proposed resolution had been handed in by the Lower Perak Association—*viz.*, "that the Immigration Department be asked to issue notices in the vernacular pointing out the shortage in rice and the serious consequences likely to result therefrom and exhorting coolies to practise every economy and to take every opportunity allowed them by their managers to stimulate local food production." He had this day received pamphlets and posters in Tamil and other languages which showed that the Government were fully alive to this point and apparently a large supply of these notices was going to be distributed through all the Land Offices. The resolution therefore proposed by the Lower Perak Association was no longer necessary.

Mr. GOOCH says everybody knew the effects of a famine and it was a famine which they were told was likely to occur in this country. The best regulations in the world were useless unless there were sufficient armed forces behind them to see that they were being carried out and he thinks it would be in the best interests of the country if more troops could be stationed here.

Mr. KENNEDY draws attention to what the Director of Food Production had recently said that eight months ago there had been such a slump in rubber that the Malays had reverted to rice cultivation. Unfortunately, the influenza epidemic had intervened, but even so the increase of land under rice cultivation had been good although the harvest had been bad, and he considered that a minimum price of 13 cents per gantang for five years would maintain the production of rice. However, the rubber market was now very much alive again and the question therefore arose whether it would not be necessary to offer a higher price than 13 cents for the next crop to increase the padi area to the utmost. Mr. James had said that the Government would guarantee 13 cents but it was clear that the consumer would have to pay this. He thinks therefore that a bounty was required in addition for all 1920 rice. Mr. James had said that a greatly increased area in rice must be continued in order to cope with the repetition of shortage such as was only too likely to recur in 1920. Now they had an excellent illustration of how to cope with such a situation in the measures taken in Great Britain during the early part of the war. The Home Government then called on the producers and said they would pay them a fixed price (which was three times the ordinary price) and that they would take over the control of the whole of the production of the commodity in question and would then re-sell to consumers at a considerable loss to themselves. This loss amounted to a bounty paid to the consumers and the result was that the Home Government had a sufficient supply of this commodity which they controlled in this manner, and, although the gift on

the part of the Government cost a great deal of money, the important point was that it saved the situation. Even if conditions out here were not on a par with the conditions obtaining in England during the early days of the war it was serious enough to warrant drastic action. This therefore should be taken immediately by offering a bounty on padi and making such decision known throughout the country so as to stimulate all who were able to plant padi throughout Malaya.

Mr. WATERFIELD describes what Scotland had done in the early days of the war when every farmer was obliged to sow 20 per cent. more than his usual area under cultivation. The Government also of course fixed a minimum price. He thinks that Malays in this country should be told similarly to plant an increased area and made to work a bit harder than they did, and he personally did not anticipate that there would be any trouble.

Mr. MOOIJAART reminds the meeting that so far they had only spoken about the controlled price and incidentally he might mention that it was just a year ago that he went to Penang and that in consequence of this visit the Standing Committee had urged Government to guarantee a minimum price for padi. They had been ridiculed at the time although the price suggested then had been much less than the 13 cents per gantang now decided upon by Government. The whole question was a vast one and he thinks that a special meeting should be called to discuss it fully as there would hardly be time to-day to do all this.

Mr. KENNEDY quite agrees but he had of course only spoken on one point.

Mr. HARVEY is in favour of the whole question being dealt with at once instead of deferring it to another meeting.

Mr. GORDON-BROWN seconds the proposal, which is carried.

Mr. TAYLER would like to inform the meeting that he had worked out figures and found that it would cost estates going in for sawah cultivation 45 cents in the first year to produce one gantang of padi and therefore it seemed to him only right that the whole of that cost should not fall on estates alone. As regards the cultivation of ragi there was a difficulty of milling it by hand and he thinks that the Government might supply mills such as the Agricultural Department were now experimenting with.

Mr. GORDON-BROWN says that the cost of these machines was very small, he believes less than Rs. 200 each. The Agricultural Department would be able to supply all further information on the subject.

Mr. MOOIJAART agrees and says he had known in South Africa some threshers which were very cheap and easy to handle. In the Coast districts of Selangor they had combined to open up the necessary area under ragi, etc., and the Committee which had this matter in hand were also going into the question of machinery.

Mr. KENNEDY then proposes, Mr. GORDON-BROWN seconds, and it is carried unanimously "that this Association is desirous that the Food Controller and Director of Food Production should consider the desirability of granting a State bounty on every gantang of padi

delivered at the mills for the 1920 crop as an inducement to Malays and others in order that every available acre of padi land throughout Malaya may be brought under cultivation during the current year."

Mr. FALLON wishes to know what power managers had to force their tappers to cultivate food as this was an occupation not provided for by section 99 (iii) of the Labour Code.

Mr. HARVEY says that this matter had already been dealt with and that he was to meet the Legal Adviser and Controller of Labour to consider the necessary amendments to the Enactment giving the employer temporary power to make the cooly work overtime. (*Applause.*)

Mr. MCCULLOCH hopes that this sub-committee would remember that in Negri Sembilan it had been held that Chinese coolies were not employees of the estates but of their respective contractors.

Mr. LANE points out that in the Krian district no land was left for padi and now they were being asked to cut out rubber but he hopes that it would be possible for them to finance Malays to open up land under padi and that this be considered sufficient.

Mr. HARVEY quite agrees that this was a justifiable alternative and says that the cutting out of rubber would only be resorted to as a last recourse.

8.—REPORT AND ACCOUNTS FOR 1918/19.

Mr. HARVEY submits the Report of the Standing Committee for the past year which as they would see was more full than had been usual in past years and which he hoped would escape the criticism of being too meagre.

Mr. MOOIJAART draws attention to an error on page 11 which had been pointed out to him since the publication of the Report and he would therefore propose that the words in line 38, page 11, " Government Agricultural Department and " be deleted.

Mr. BRUCE proposes that the report as amended be adopted. This is seconded by Mr. GOOCH and passed unanimously.

Mr. FERGUSON proposes that the accounts as presented be passed. This is seconded by Mr. BRADBURNE and passed unanimously.

9.—ELECTIONS.

Mr. HARVEY says that the next business on the agenda was the election of a Chairman and as there was only one nomination for the chair—*viz.*, himself, he supposes that he had to declare himself duly elected. (*Applause.*)

He was fully alive to the honour done to him by way of being elected Chairman of the Planters' Association of Malaya. It was a position he had never aspired to, as in his opinion it was not by any means an easy position to fill successfully. And unless he could do a thing well he would rather leave it alone. However, the force of circumstances more than anything else decreed that he should stand for the chair this year and he thanked the various District Planters' Associations and the members very heartily for his unopposed return. He was going to try very hard to make a success of his year

of office. It would most probably be his last year in the country. But he would not make a success of it unless he could count on the loyal support of the members. The Chairman of an association of this size and strength had certain rights and privileges. They reposed confidence in him by electing him as their head—great confidence when this election was unanimous—and it was only right that he should be allowed to exercise his judgment freely. There did not appear to be any attraction in being Chairman if he was to be knocked on the head the first time he exercised the prerogatives which should go with his office. They were giving him power to-day and he intended to make use of that power if necessary. He had two convictions—one was the folly of wearing out the toes of his shoes against a brick wall, and the other that a policy of give and take was preferable to that policy which was so rampant nowadays—take all and give nothing. Theodore Roosevelt—one of the greatest-hearted men of modern times—said that he loved to make enemies because he failed to see how a man who had high ideals and was true to himself could possibly please everyone. He contended that the universally popular man was never really a true-hearted man. They and he appeared to be on quite friendly terms to-day. He hoped that this time next year they would have the same amount of respect for each other—if not more. As he had said, he intended to do his utmost for the Planters' Association of Malaya. They must support him loyally and help him to keep the Association in that high place which its importance justified. He thanked them all very much for electing him as their Chairman to-day. (*Applause.*)

Mr. HARVEY says the next business before the meeting was the election of a Vice-Chairman. Nominations had been sent in of Mr. J. W. Kennedy, Mr. J. D. McCulloch and Mr. J. Bruce.

Mr. MCCULLOCH and Mr. BRUCE rise to explain that they did not wish to stand.

Mr. HARVEY says that there was now no need for a ballot and Mr. Kennedy was therefore unanimously elected Vice-Chairman. (*Applause.*) He was sure that this election meant a very good appointment and he was only sorry that he was so widely separated from Mr. Kennedy by distance, yet they hoped to keep in close touch with one another by correspondence. He congratulated the Association on Mr. Kennedy's election.

Mr. KENNEDY assures the meeting that he appreciated very highly the honour conferred on him to-day by his election as Vice-Chairman of the Planters' Association of Malaya and he was proud to be able to serve under Mr. Harvey, one of the oldest members of the Association. He could assure them that he would do everything in his power to promote the planting industry and its interests in Malaya. (*Applause.*)

Mr. HARVEY informs the meeting that the ballot for five members of the Standing Committee and ten members of the Benevolent Fund Standing Committee would now be proceeded with and appoints Messrs. Jeavons, Dudley and Fisher, scrutineers. To prevent any misunderstanding he would like to mention that Mr. Kindersley had authorized him to say that he would be glad to serve on these Committees if elected. (*Applause.*)

The ballot then takes place and the Chairman at the close of the meeting declares the following elected:

Planters' Association of Malaya Standing Committee—

Mr. G. H. Bennett	Mr. T. H. Menzies
The Hon'ble Mr. R. C. M. Kindersley	„ L. Mooijaart
	„ H. R. Quartley

Planters' Benevolent Fund of Malaya Standing Committee—

Mr. C. Bell	The Hon'ble Mr. R. C. M. Kindersley
The Hon'ble Mr. H. P. Clodd	Mr. L. Mooijaart
Rev. A. B. Champion	„ H. R. Quartley
Mr. D. H. Hampshire	„ H. E. G. Solbe
Rev. A. D. Harcus	„ V. A. Tayler

Mr. KENNEDY says the next business was the election of the Secretary and he had much pleasure in proposing the re-election of Mr. Zacharias to whose worth he was glad to be able to pay a tribute.

Mr. MOOIJAART seconds the proposal which is supported by Mr. Harvey and carried unanimously.

10.—BUDGET.

Mr. FERGUSON says the Standing Committee had submitted a Budget and he would now propose accordingly the following two resolutions:

(*a*) "That the subscription for 1919/20 be assessed at two cents per cultivated acre.

(*b*) "That the following expenditure votes be sanctioned for the current year:

Agricultural Bulletin, other printing and stationery	$2,500
Library	100
Premises	750
Postal	500
Legal advise	250
Standing Committee	1,200
Secretary's salary	3,000
Clerk's salary	600
United Malaya Council	850
Travelling and other contingencies ...	600"

Mr. TATE seconds the proposals, which are carried unanimously.

11.—RULES.

Mr. MCCULLOCH proposes that the words "and Vice-Chair" be added in Rule 16 and the words "and Vice-Chairman" in Rule 18 and 20 after the word "Chair" and "Chairman," respectively.

This was a purely formal matter and was necessitated by their resolution of last year whereby the post of a Vice-Chairman had been created.

Mr. Mooijaart seconds the proposal, which is carried unanimously.

Mr. Harvey then proposes that the following new rules be added after existing Rule 14:

"(*a*) The Chairman at the beginning of every meeting shall submit the minutes of the previous meeting for confirmation;

(*b*) No proposal for altering the minutes shall be in order, except on a question of the accuracy of the said minutes;

(*c*) In the event of there being no proposal for an alteration of the minutes and, in the event of there being such a proposal and of it being agreed to by the majority of members present, the Chairman shall certify the minutes as correct and confirmed, after having in the second event altered them accordingly."

The reason for moving this was no doubt obvious to all members, and he would only say that it could not but recommend itself to everybody to have a clear rule on this subject incorporated in their set of rules.

Mr. Lawford seconds the proposal, which is carried unanimously.

Mr. Harvey says that the Rules of Debate, which appeared in the agenda, were really not his own production but had been copied by him from Rules of Debate which Mr. E. B. Skinner many years ago had extracted for the Kuala Lumpur District Planters' Association for guidance at their meetings. He had no wish to propose them as hard and fast rules since they would require a good deal of further discussion in that case, but perhaps they could be printed as an appendix to their rules.

Mr. Gordon-Brown does not think it advisable to include them in their rules.

Mr. McCulloch agrees with this and thinks the purpose would be served by having them distributed separately for the information of members.

12.—GENERAL.

Mr. Menzies wishes to bring up the question of the periodical flooding of the Rawang-Kuala Selangor Roads. These floods had become very serious but nothing had been done so far to raise the road and in the meantime thousands of acres were flooded, as the present bund was absolutely useless. He would like the Planters' Association of Malaya to press for an expert to come and report on the situation.

Mr. Mooijaart supports all Mr. Menzies had said.

Mr. Harvey says that Mr. Murray had sent him full details but, unfortunately, he had left these behind. He would now propose that the whole matter be referred to the Standing Committee for action.

Agreed to.

Mr. MONTEITH raises the question of the Railway liability for rubber entrusted to them and says that at Batang Benar the Railway refused to give receipts to them for any rubber sent after the despatch of the goods train.

Mr. HARVEY says that this matter had already been discussed and that the Railway were anxious to comply with their request as soon as they had the necessary staff, but with the present shortage it seemed to him useless to take up the matter again.

The SECRETARY says he had recently had some correspondence with the Johore Planters' Association in the similar case of Labis Station.

Mr. DOUGLAS wishes to move in the question of servant registration which had been thrown out at the Federal Council last year, and he proposes that the Government be approached again on the subject.

Mr. JEAVONS seconds and says the subject had been sufficiently threshed out. The one valid excuse so far made that there was no person available to be made Official Registrar held no longer good as people who could fill this post were constantly coming back to this country. Especially now that a lot of new men were coming out it was important to do something so that they should not be at the mercy of their domestic servants.

Mr. HARVEY thinks that more elaboration was needed before they committed themselves to such a resolution and suggests that the District Planters' Associations be circularized whose opinion should be placed before the Standing Committee who in their turn would report to the Association in due course of time. Personally he thinks that they might have servant registration just like registration of vehicles, *i.e.*, as a municipal measure, but he feels that the whole matter was doomed to failure if it was going to be connected with the Police. Perhaps he might say that if the Chinese objected very much it might be possible to start with registering Indian servants first and when the Chinese saw the advantage they might voluntarily follow suit, but as matters stood now a very strong Government was needed to enforce such a legislation amongst the Chinese.

Mr. JEAVONS says he had given notice that he wished to speak on the subject of telephones and hired cars but proposes that these two subjects also had best be referred back to the Constituent Associations.

Mr. HARVEY observes that the night telephone question had been settled by the Government and it really did not seem of any use to bring up the same question again and again.

Mr. JEAVONS says it could not be a question of shortage of staff but only of expense and that excuse was not fair. To say that no district could have night telephones unless there were 100 subscribers in it was to adopt a grossly unfair basis.

Mr. FERRERS describes what had been done in the Kajang district.

Mr. WATERFIELD does not see the use of being able to hold telephonic conversations at a time when they should be asleep. (*Laughter*). Even the theoretical possibility of ringing up a doctor was in practice of little value.

Mr. KENNEDY thinks the matter might be brought before the Government again but perhaps they had better allow some time to elapse before doing so.

Mr. MENZIES says the Kuala Selangor District Planters' Association wished the matter to be left on the agenda until they got the night service granted.

Mr. HARVEY agrees that the rule about 100 subscribers was a very arbitrary one and that if a district could show that every estate in the district was a telephone subscriber that seemed sufficient reason for their getting the night service. He agrees that they should not lose sight of the matter but he thinks that nothing was gained by approaching Government again on the subject just now.

Mr. JEAVONS suggests that this matter be brought up again in four months' time, and this is agreed to.

Mr. FALLON says his Association wished the Planters' Association of Malaya to move in getting back to a pre-war railway service and passenger rates.

At the suggestion of the Chairman, this matter is referred to the Standing Committee.

Mr. TIVY would similarly like the Standing Committee to take up the matter of small change.

Agreed to.

Mr. HARVEY says that if no further questions were being brought forward they had to settle the venue of the next meeting.

Mr. BRADBURNE invites the Association to hold the June meeting in Johore Bahru.

Mr. GORDON-BROWN suggests Ipoh.

Mr. BRUCE says it was the turn of the next meeting to be held in the south and not in the north and that as a lot of Chinese labour questions were going to be discussed he considers that Seremban would be the most proper place.

The next meeting is accordingly fixed for 25th June at Seremban.

With a vote of thanks to the Chair, the meeting terminates at 4.30 p.m.

H. C. E. ZACHARIAS,
Secretary.

Abstract of Meteorological Readings in the various Districts of Malaya for the month of January, 1919.

District.	Mean Barometrical Pressure at 32° Fah.	Maximum in Sun.	Temperature.				Hygrometer.				Prevailing Direction of Winds.	Total Rainfall.	Greatest Rainfall during 24 hours.
			Mean Dry Bulb.	Maximum.	Minimum.	Range.	Mean Wet Bulb.	Vapour Tension.	Dew Point.	Humidity.			
Kelantan, Kota Bahru	...	142.0	79.1	86.38	72.93	13.45	75.3	.804	72.7	80.	...	17.31	5.75
Pahang, Kuala Lipis	...	...	79.05	88.35	72.83	15.51	74.69	...	...	...	...	9.41	2.61
Johore, Johore Bahru	...	...	...	85.77	72.82	...	...	...	...	...	...	16.97	4.56
Singapore, Kandang Kerbau ...	29.864	160.0	81.3	86.9	74.0	12.9	77.1	.873	...	82.2	N.E.	12.82	3.87
Malacca, Durian Daun ...	29.913	136.0	81.0	89.0	73.0	16.0	77.0	.886	...	82.	N.E.	3.83	1.77
Negri Sembilan, Seremban ...	...	153.7	81.1	88.6	72.9	18.7	75.9	.799	72.4	74.8	S.W.	3.85	.82
,, Kuala Pilah ...	...	140.0	80.1	89.3	70.8	18.5	78.1	.912	76.1	84.9	...	4.54	1.64
,, Port Dickson...	...	126.8	82.0	87.4	74.8	12.6	77.6	.866	74.8	79.6	...	4.00	.88
Selangor, Kuala Lumpur ...	29.867	148.0	81.5	86.7	72.9	13.8	75.9	.797	73.0	74.	N.W.	2.56	.75
,, Klang	...	...	80.9	85.6	73.6	12.0	76.3	...	...	...	...	4.52	1.13
,, Kuala Selangor ...	...	...	...	88.5	74.3	14.2	...	...	...	...	...	5.49	1.57
,, Rawang	...	...	...	94.1	...	...	...	...	...	...	...	2.97	1.13
Perak, Telok Anson	...	...	82.06	92.0	72.0	20.0	78.09	.909	...	85.0	...	13.07	2.83
,, Ipoh	...	...	81.43	93.0	69.0	24.0	76.11	.831	74.43	78.0	...	5.78	1.77
,, Taiping	...	115.0	80.48	92.0	68.0	24.0	76.63	.867	...	85.0	...	9.48	1.18
,, The Cottage	...	...	...	...	...	...	...	...	...	...	...	3.46	.70
,, Parit Buntar	...	...	83.60	92.0	70.0	22.0	78.13	.892	...	79.0	...	8.79	1.73
Penang, George Town	29.777	146.0	83.6	90.3	73.6	16.7	76.9	.860	69.3	80.2	N.W.	2.18	1.02
Kedah, Alor Star	...	...	...	...	...	...	...	...	...	...	...	2.24	2.13
Perlis, Kangar	...	...	...	87.32	71.39	15.93	...	...	...	...	...	1.04	.32

Abstract of Meteorological Readings in the various Districts of Malaya for the month of February, 1919.

District.	Mean Barometrical Pressure at 32° Fah.	Maximum in Sun.	Temperature.				Hygrometer.				Prevailing Direction of Winds.	Total Rainfall.	Greatest Rainfall during 24 hours.
			Mean Dry Bulb.	Maximum.	Minimum.	Range.	Mean Wet Bulb.	Vapour Tension.	Dew Point.	Humidity.			
Kelantan, Kota Bahru	...	148.0	80.1	87.50	72.75	14.78	75.6	.801	72.6	78.	...	4.12	2.07
Pahang, Kuala Lipis	...	...	81.34	89.89	73.46	16.39	75.93	...	...	...	...	6.10	1.58
Johore, Johore Bahru	...	...	...	88.78	73.21	...	...	...	...	...	...	6.69	2.23
Singapore, Kandang Kerbau ...	29.875	159.0	82.7	88.7	74.5	14.2	77.2	.854	...	77.	N.E.	4.64	2.04
Malacca, Durian Daun	29.882	141.0	82.0	90.0	74.0	16.0	77.0	.876	...	77.	N.E.	4.76	3.22
Negri Sembilan, Seremban ...	...	153.5	82.1	87.2	72.4	14.7	75.8	.776	71.6	71.6	S.W.	1.21	.42
,, Kuala Pilah ...	...	144.1	81.3	90.2	73.1	17.1	79.4	.937	77.0	82.5	...	1.86	.95
,, Port Dickson...	...	125.5	82.8	88.3	74.6	13.7	77.8	.843	74.0	75.5	...	2.68	1.16
Selangor, Kuala Lumpur ...	29.858	141.0	83.9	88.7	73.2	15.5	78.0	.830	75.1	73.0	N.E.	7.85	2.95
,, Klang	...	...	81.1	87.1	74.3	12.8	76.7	...	...	...	...	5.72	2.04
,, Kuala Selangor ...	...	...	...	89.9	75.1	14.8	...	...	...	...	...	5.19	1.79
,, Rawang	...	...	...	97.2	...	...	...	...	...	...	...	4.24	1.97
Perak, Telok Anson	...	...	82.78	92.0	70.0	22.0	78.10	.901	...	81.	...	4.01	1.49
,, Ipoh	...	...	83.74	95.0	69.0	26.0	76.89	.832	74.68	73.	...	5.47	1.69
,, Taiping	...	114.0	82.02	94.0	70.0	24.0	77.74	.894	...	83.	...	8.73	2.20
,, The Cottage	...	...	...	...	...	...	...	...	...	...	...	6.41	1.25
,, Parit Buntar	...	...	83.65	93.0	68.0	25.0	77.90	.880	...	77.	...	2.24	1.73
Penang, Georgetown	29.829	149.0	83.2	91.5	72.8	18.7	77.4	.919	69.7	79.8	N.W.	1.53	.66
Kedah, Alor Star	...	...	...	...	...	...	...	...	...	...	...	.44	.21
Perlis, Kangar	...	...	...	90.0	72.36	17.64	...	...	...	...	...	2.04	1.30